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ANNUAL REGISTER

1922-23

"The beneficence of the Creator towards man on earth, and the possibilities of humanity, are one and the same."—LELAND STANFORD.

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STANFORD UNIVERSITY, CALIFORNIA
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Stanford University
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OFFICE DIRECTORY

[The rooms in the Inner Quadrangle are numbered consecutively, beginning at the left of the main entrance, ten numbers being alloted to each building. In the Outer Quadrangle forty numbers are allotted to each of the larger buildings and ten numbers to each one-story building, beginning with the Assembly Hall (number 120). The Administration Building is on the north facade of the Outer Quadrangle. The Engineering buildings south of the Quadrangles begin with number 500. The Library is the central building in the second quadrangle group. The Chemistry building is on the west avenue between the Quadrangles and the Museum. Anatomy and Bacteriology are in the old Museum building.]

Administration Building:

PRESIDENT, room 165.

COMPTROLLER, room 162.

REGISTRAR, room 164.

DEAN OF MEN, room 161.

DEAN OF WOMEN, room 163a.

ACADEMIC SECRETARY AND ALUMNI SECRETARY, room 174.

APPOINTMENT SECRETARY, room 170.

LOWER DIVISION COMMITTEE, room 163b.

COMMITTEE ON PUBLIC HEALTH, room 163b.

CITIZENSHIP, room 172.

The various Departmental offices are given in the SCHEDULE and in the DIRECTORY OF OFFICERS AND STUDENTS.

The University Post Office is *Stanford University, California.*

The University Telephone Office is *Palo Alto* (Office and Departmental telephones "Palo Alto 900" with local numbers added).

The University Railway Station and Telegraph and Express Offices are *Palo Alto, California.*

Requests for *University Bulletins,* blanks, and other printed matter, and inquiries regarding terms of admission, advanced standing, etc., should be addressed to THE REGISTRAR, *Stanford University, California.*

UNIVERSITY CALENDAR

1922

AUTUMN QUARTER

Oct.	2	Monday	Lower Division Registration (new students).
Oct.	3	Tuesday	Registration for Autumn Quarter.
Oct.	4	Wednesday	Instruction begins.
Oct.	6	Friday	Conferring of Degrees.
Nov.	30	Thursday	Thanksgiving Recess.
Dec.	3	Sunday	
Dec.	19–22	Wednesday-Friday	End-Quarter Examinations.

1923

WINTER QUARTER

Jan.	2	Tuesday	Registration for Winter Quarter.
Jan.	3	Wednesday	Instruction begins.
Jan.	5	Friday	Conferring of Degrees.
Feb.	22	Thursday	Washington's Birthday.
March	9	Friday	Founders' Day.
Mar.	20–23	Wednesday-Friday	End-Quarter Examinations.

SPRING QUARTER

April	2	Monday	Registration for Spring Quarter.
April	3	Tuesday	Instruction begins.
April	6	Friday	Conferring of Degrees.
June	9–13	Monday-Wednesday	End-Quarter Examinations.
June	16	Saturday	Alumni Day.
June	17	Sunday	Baccalaureate Sunday.
June	18	Monday	Commencement.

SUMMER QUARTER

June	19	Tuesday	Registration for Summer Quarter.
June	20	Wednesday	Instruction begins.
July	4	Wednesday	Independence Day.
July	25	Wednesday	First Half ends.
July	26	Thursday	Second Half begins.
Aug.	30	Thursday-Saturday	End-Quarter Examinations.
Sept.	1		

ADMINISTRATIVE OFFICERS

THE BOARD OF TRUSTEES

[The figures in parentheses indicate year of beginning of service.]

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LELAND WHITMAN CUTLER, A.B. (1920), Insurance Exchange Bldg., San Francisco
FRANK PRENTISS DEERING, A.M. (1916), Nevada Bank Bldg., San Francisco
†CHARLES PARMELEE EELLS, A.B. (1905), 2415 Pierce st., San Francisco
JOSEPH DONOHOE GRANT, A.B. (1891), 114 Sansome, San Francisco
THOMAS TINGEY CRAVEN GREGORY, A.B. (1919), Balfour Bldg., San Francisco
HERBERT CLARK HOOVER, LL.D. (1912), Washington, D. C.
TIMOTHY HOPKINS (1885), Nevada Bank Bldg., San Francisco
†SAMUEL FRANKLIN LEIB, LL.B. (1891), First Ntl. Bk. Bldg., San Jose
WILLIAM MAYO NEWHALL, B.S. (1912), 260 Calif. st., San Francisco
JAMES LEROY NICKEL (1909), Merchants Exchange Bldg., San Francisco
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MARCUS CAUFFMAN SLOSS, A.M. (1920), Mills Bldg., San Francisco

OFFICERS OF THE BOARD

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Treasurer: TIMOTHY HOPKINS.
Secretary and Assistant Treasurer: THOMAS TINGEY CRAVEN GREGORY.
Assistant Secretary: LELAND WHITMAN CUTLER.

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University: NOURSE, DEERING, †EELLS, HOOVER, †LEIB, CUTLER, SLOSS, NEWHALL.
Library: HOPKINS, HOOVER, NOURSE.
Rules: GREGORY, NOURSE, SLOSS.
Campus: CUTLER, GREGORY, HOPKINS, HOOVER.
Medical Sub-Committee: NOURSE, CHAMBERLAIN, GREGORY.

† Resigned.

THE UNIVERSITY

[Office and office hours in parentheses; MTWThF unless otherwise specified.]

President: Ray Lyman Wilbur. (Adm. 165, 10–12, 2–5.)
Comptroller: Almon Edward Roth. (Adm. 162, 8:30–12, 1:30–5; S 8:30–12.)
Registrar: Orrin Leslie Elliott. (Adm. 164, 8–12, 1–4; S 8–12.)
Librarian: George Thomas Clark. (Library, 8:30–12, 1–4.)
Academic Secretary: John Ezra McDowell. (Adm. 174, 8–5; S 8–12.)
Dean of Women: Mary Yost. (Adm. 163a, 10–12; MTWF 2–4.)
Dean of Men: George Bliss Culver. (Adm. 161a, MWF, 9–12, 1:15–4; S 9–10 by appointment.)
Dean of the School of Education: Ellwood Patterson Cubberley. (50, MTWTh, 10:45–11; T 4.)
Dean of the Law School: Marion Rice Kirkwood.† (5, 2:15–4.)
Dean of the School of Medicine: William Ophüls. (San Francisco.)
Dean of Graduate Study: Edward Curtis Franklin. (c35, 11–12.)
Chaplain: David Charles Gardner. (Vestry, 9–12.)
Appointment Secretary: Elizabeth Burritt Snell. (Adm. 170, 9–11:30, 1:30–4; S 8:30–11:15.)
Medical Adviser of Women: Clelia Duel Mosher. Roble Gymnasium, 4–5; S 10.)
Medical Adviser of Men: William Hulbert Barrow. (Encina Gymnasium, 9–11, 2–5; S 9–11.)

DEPARTMENT EXECUTIVES

[Office in parentheses.]

Anatomy: Arthur William Meyer. (m7.)
Applied Mathematics: Leander Miller Hoskins. (275.)
Bacteriology and Experimental Pathology: Edwin William Schultz. (m4).
Botany: Douglas Houghton Campbell. (468.)
Chemistry: Robert Eckles Swain. (c44.)
Civil Engineering: Charles David Marx. (271.)
Classical Literature: Henry Rushton Fairclough. (257.)
Economics: Murray Shipley Wildman. (223.)
Education: Ellwood Patterson Cubberley. (50.)
Electrical Engineering: Harris Joseph Ryan. (505.)
English: Raymond Macdonald Alden. (206.)

† Acting.

Geology: Eliot Blackwelder. (340.)
Germanic Languages: William Alpha Cooper. (116.)
History: Payson Jackson Treat. (236.)
Law: Marion Rice Kirkwood. (5.)
Mathematics: Robert Edgar Allardice. (70.)
Mechanical Engineering: William Frederick Durand. (260.)
Medicine: William Ophüls. (San Francisco.)
Anatomy: Arthur William Meyer. (m7.)
Bacteriology and Experimental Pathology: Edwin William Schultz. (m4.)
Chemistry: Robert Eckles Swain. (c44.)
Hygiene and Public Health: William Ophüls. (San Francisco.)
Medicine: Albion Walter Hewlett. (San Francisco.)
Obstetrics and Gynecology: Alfred Baker Spalding. (San Francisco.)
Pathology: William Ophüls. (San Francisco.)
Pharmacology: Paul John Hanzlik. (San Francisco.)
Physiology: Ernest Gale Martin. (482.)
Surgery: Stanley Stillman. (San Francisco.)
Military Science and Tactics: Leroy Pierce Collins.
Mining and Metallurgy: Theodore Jesse Hoover. (558.)
Philosophy: Henry Waldgrave Stuart. (92.)
Physics: David Locke Webster. (389.)
Physiology: Ernest Gale Martin. (482.)
Political Science: Victor J. West. (22.)
Psychology: Lewis Madison Terman. (399.)
Romanic Languages: Oliver Martin Johnston. (246.)
Zoology: Charles Henry Gilbert. (443.)

Food Research: Carl Lucas Alsberg. (30.)
Library: George Thomas Clark.
Memorial Church: David Charles Gardner.
Museum: Pedro J. Lemos.
Physical Education—
Men: William Hulbert Barrow.
Women: Helen Masters Bunting.

† Acting.

STANDING COMMITTEES OF THE ACADEMIC COUNCIL

[The first-named member in each committee is Chairman, unless otherwise indicated. The term of office of members of the Executive Committee begins immediately upon election (in May); of all other standing committees, September 1st.]

ADVISORY BOARD

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OFFICERS OF INSTRUCTION AND ADMINISTRATION

[Name; office; residence telephone; title; residence; post-office. Post-office in all cases *Stanford University* except where University residence is followed by initial letters of town ("p" indicates *Palo Alto* post-office; "Mayfield-m," *Mayfield* post-office, etc.). Street address *Palo Alto* or *Campus* unless otherwise named. Brackets indicate absence on leave for the year. The dagger (†) marks the names of men who are married.]

Emeritus List

†Anderson, Melville Best,
Professor of English Literature, Emeritus, Menlo Park 773 Menlo Park
A.M., Butler University, 1877; LL.D., Aberdeen, 1906. At Stanford since 1891, Emeritus since 1910.

Angell, Frank,
Professor of Psychology, Emeritus, PA 87 1200 Bryant-p
B.S., Vermont, 1878; Ph.D., Leipzig, 1891; L.H.D., Vermont, 1892. At Stanford since 1892, Emeritus since 1922.

†Barkan, Adolph,
Professor of Structure and Diseases of Eye, Ear, and Larnyx, Emeritus, 2209 Laguna, SF-sf
M.D., University of Vienna, 1866; LL.D., University of Glasgow, 1901. At Stanford since 1909, Emeritus since 1911.

†Cooper, Charles Miner,
Clinical Professor of Medicine, Emeritus, Fillmore 1821 2550 Buchanan, SF-sf
M.B.Ch.B., Edinburgh, 1897. At Stanford since 1918, Emeritus since 1922.

†Griffin, James Owen,
Professor of German, Emeritus, PA 1054 14 Alvarado
Graduate Pennsylvania State Normal School, 1873. At Stanford since 1891, Emeritus since 1917.

†Jenkins, Oliver Peebles,
Professor of Physiology and Histology, Emeritus, PA 1151M 3 Lausen
A.B., Moore's Hill College, 1869, A.M., 1872; M.S., Indiana, 1886, Ph.D., 1889; LL.D., Moore's Hill College, 1916. At Stanford since 1891, Emeritus since 1916.

†Jordan, David Starr,
Chancellor, Emeritus, PA 1001 Xazmin House
M.S., Cornell, 1872; M.D., Indiana Medical College, 1875; Ph.D., Butler College, 1878; LL.D., Cornell, 1886, Johns Hopkins, 1902, Illinois College, 1903, Indiana, 1909, California, 1915, Western Reserve, 1915. President of the University, 1891–1913, Chancellor, 1913–16, Emeritus since 1916.

Martin, Lillien Jane,
Professor of Psychology, Emeritus, Sutter 3489 821–822 Shreve Bldg., SF-sf
A.B., Vassar, 1880; M.L.A., and honorary Ph.D., Bonn, 1913. At Stanford since 1899, Emeritus since 1916.

†SANFORD, FERNANDO, PA 646
Professor of Physics, Emeritus, 450 Kingsley-p
B.S., Carthage College, 1879, M.S., 1882. At Stanford since 1891, Emeritus since 1919.

†STILLMAN, JOHN MAXSON, PA 1048
Professor of Chemistry, Emeritus, 2 Alvarado
Ph.B., California, 1874, Ph.D., 1885, LL.D., 1916. At Stanford since 1891, Emeritus since 1917.

†WILLIS, BAILEY, PA 1118
Professor of Geology, Emeritus, 5 Lasuen
E.M., Columbia School of Mines, 1878, C.E., 1879; Hon. Ph.D., University of Berlin, 1910. At Stanford since 1915, Emeritus since 1922.

ACTIVE LIST

†ABRAMS, LEROY, (123) PA 1125
Professor of Botany, 19 Cabrillo
A.B., Stanford, 1899, A.M., 1902; Ph.D., Columbia, 1910. Acting Professor of Botany, University of Idaho, 1899–1900; Assistant in Botany, Stanford University, 1900–02, Instructor, 1902–04; Fellow in Botany, Columbia University, 1904–05; Assistant Curator, Division of Plants, United States National Museum, 1905–06; Lecturer in Botany, University of California, first semester, 1915–16; Field Assistant, U. S. Department of Agriculture, summer, 1918. At Stanford 1900–04, and since 1906.

†ADAMS, EPHRAIM DOUGLASS, (234) PA 1058
Professor of History, 7 Cabrillo
A.B., Michigan, 1887, Ph.D., 1890; LL.D., Grinnell, 1917; Litt. D., Tufts, 1918. Principal of High School, McGregor (Ia.), 1887; Principal of High School, Saginaw (Mich.), 1889; Special Agent in Charge of Street Railways, Eleventh Census, Washington (D. C.), 1890; Assistant Professor and afterward Professor of European History, University of Kansas, 1891–1902. At Stanford since 1902.

†ADDIS, THOMAS, (123) Sausalito 163W
Professor of Medicine, 57 Miller ave., Sausalito-s
M.B.Ch.B., Edinburgh, 1905; M.D., and M.R.C.P., 1908. Clinical Assistant, Medical Out-Patient Department, Royal Infirmary of Edinburgh, 1908, 1911; Medical Registrar, Leith Hospital, 1911; Carnegie Research Scholar and Fellow, 1908–11; Director of the Clinical Laboratory, Lane Hospital, since 1911. At Stanford since 1911.

†ALDEN, RAYMOND MACDONALD, (134) PA 288
Professor of English, 427 Embarcadero Road
A.B., Pennsylvania, 1894; A.M., Harvard, 1896; Ph.D., Pennsylvania, 1898. Instructor in English, Columbia University, 1894–95; Assistant in English, Harvard University, 1896–97; Senior Fellow in English, University of Pennsylvania, 1898–99, Instructor, 1899–1901; Assistant Professor of English Literature and Rhetoric, Stanford University, 1901–09, Associate Professor of English, 1909–11; Professor of English, University of Illinois, 1911–14; Acting Associate Professor, University of Chicago, Summer Quarter, 1910; Acting Professor, Harvard University, Summer Session, 1912, Columbia University, 1916, 1919. At Stanford 1901–11, and since 1914.

†ALDERSON, HARRY EVERETT, (1234) Fillmore 4548
Clinical Professor of Medicine (Dermatology), 2649 Green, SF-sf
M.D., California, 1900. Assistant in Skin Diseases, Medical Department of University of California, 1906–12; Professor of Art Anatomy, California School of Design, 1906–12; Chief of Skin Clinic, San Francisco Fruit and Flower Mission. At Stanford since 1912.

ALLARDICE, ROBERT EDGAR, (123) — PA 1036
Professor of Mathematics, — County Road

A.M., Edinburgh, 1882. Baxter Scholar in Mathematics, University of Edinburgh, 1882–83. Drummond Scholar in Mathematics, 1883–84; Assistant Professor of Mathematics, University of Edinburgh, 1883–92. At Stanford since 1892.

†ALLEN, CLIFFORD GILMORE, (123) — PA 1031J
Professor of Romanic Languages, — 25 Alvarado

A.B., Boston, 1900; A.M., Stanford, 1903; Docteur de l'Université de Paris, 1916. Student, University of Paris, 1903–04; Fellow of Boston University and Student at Universities of Paris and Madrid, 1904–05. At Stanford since 1901.

†ALLEN, WARREN D., (234) — P A 1151J
Organist, — 2 Salvatierra

Associate, American Guild of Organists; Pupil of Rudolph Ganz and Alex von Fielitz, Berlin, 1909–10; studied organ with C. M. Widor, Paris, 1911; member of Busoni Class, Basel, Switzerland, September, 1910; Dean of Conservatory of Music, College of the Pacific, 1913–19. At Stanford since 1918.

†ALLIN, CEPHAS DANIEL, (4)
Acting Professor of Political Science (Summer Quarter), — Minneapolis, Minn.

A.B., Toronto, 1897, LL.B., 1899; A.M., Harvard, 1900. Student, University of Berlin, 1903, Oriel College, Oxford, 1904; Instructor in Political Science, Stanford University, 1902–03; Instructor in History, Queen's University, Canada, 1906–07; Instructor in Political Science, University of Minnesota, 1907–09, Assistant Professor, 1910–13, Associate Professor, 1913–15; Professor, 1915–17, Professor of Public Law since 1917.

†ALMACK, JOHN CONRAD, (1234)
Lecturer in Education, — 331 Dartmouth, Mayfield

B.S., Oregon, 1920; Ph.D., Stanford, 1923.

ALMOND, NINA, (1234) — PA 991J
Librarian, Hoover War Library, — 4 Lasuen

†ALSBERG, CARL LUCAS, (1234) — PA 1106M
Director and Executive Secretary, Food Research Institute, — 1201 Bryant

A.B., Columbia, 1896, A.M., 1900, M.D. (College of Physicians and Surgeons), 1900. Student, Universities of Strassburg and Berlin, 1900–03; Assistant in Physiological Chemistry, Harvard University, 1902–05, Instructor in Biological Chemistry, 1905–08; Chemical Biologist, Bureau of Plant Industry, United States Department of Agriculture, 1908–12; Chief, Bureau of Chemistry, 1912–21.

†ANDERSON, FREDERICK, (123) — PA 682W
Instructor in French, — 720 Cowper-p

A.B., Stanford, 1911; A.M., Harvard, 1912; Ph.D., Yale, 1915. Instructor in French and Spanish, Reed College, 1912–13, Sheffield Scientific School, 1913–14, Yale University, 1914–15; Fellow in Yale University, 1914–15. At Stanford since 1920.

†ARNOLD, CLEMENT HARISSE, (1234) — Pacific 9240
Clinical Instructor in Medicine, — 3829 Jackson, SF-sf

A.B., Stanford, 1910; M.D., Johns Hopkins, 1918. At Stanford since 1919.

†AYER, LESLIE JAMES, (23)
Acting Professor of Law (Winter and Spring Quarters), — Pine and Powell, SF-sf

B.S., Upper Iowa, 1899; J.D., Chicago, 1906.

†Bacher, John Adolph, (1234) Pacific 3334
Assistant Clinical Professor of Surgery (Otology, Rhinology, Laryngology), 157 25th ave., SF-sf
A.B., Stanford, 1899; M.D., Harvard, 1911. At Stanford since 1917.

Bailey, Margery, (1234) PA 6625
Instructor in English, 723 Hamilton
A.B., Stanford, 1914, A.M., 1916; Ph.D., Yale, 1922. Fellow in English, Yale University, 1921–22. At Stanford since 1914.

†Barkan, Hans, (123) Bayview 4689
Assistant Clinical Professor of Surgery (Ophthalmology), 21 Commonwealth, SF-sf
A.B., Sanford, 1905; M.D., Harvard Medical School, 1910. Assistant in Pathology, Harvard Medical School, 1910–11, Instructor, 1911–12; Pathologist to the Long Island Hospital and Boston City Almshouse, 1911–12; Voluntary Assistant, II, Eye Clinic, Vienna, 1912–14. At Stanford since 1914.

†Barkan, Otto, (123) Fillmore 3353
Clinical Instructor in Surgery (Ophthalmology), 2058 Vallejo, SF-sf
A.B., Trinity College, Oxford, 1909.

Barnes, Wallace Harold, (123) Sutter 6225
Clinical Instructor in Medicine, 741 Phelan Bldg., SF-sf
M.D., Jefferson Medical College, 1918. At Stanford since 1920.

Barnett, George de Forest, (123) PA 899
Assistant Clinical Professor of Medicine, 15 Mirada
A.B., Stanford, 1906, A.M., 1909, M.D., 1913. Instructor in Chemistry, Stanford University, 1909–10; Student, Johns Hopkins Medical School, 1910–12; Senior House Officer, Lane Hospital, 1914–15; Lieutenant, M.C., U.S.N., R.F., 1917–19. At Stanford since 1915.

†Barrow, William Hulbert, (1234) PA 1207J
Professor of Physical Education, Medical Adviser of Men, Director of Encina Gymnasium, 1326 Byron
A.B., Harvard, 1908, M.D., 1916. House Officer, Medical Service, Peter Bent Brigham Hospital, Boston, 1916–17; First Lieut. and Captain M.C., U.S.A., 1917–21; A.E.F., 1917–19; Medical Supervisor and Athletic Advisor, Middlesex School, Concord, Mass., 1921–22. At Stanford since 1922.

†Bassett, Lee Emerson, (123) PA 1080
Professor of English, 9 Cabrillo
A.B., Stanford, 1901. Graduate, Cumnock School of Oratory, Los Angeles, 1898; Instructor in Public Speaking, University of Southern California, 1898–99; Student, School of Expression, Boston, 1901; Acting Associate Professor of Public Speaking, University of Washington, 1912–13; Professor of Public Speaking, University of Colorado, Summer Session, 1919, 1923, University of California, Intersession, 1922. At Stanford since 1900.

†Baumberger, James Percy, (234) Mission 4668
Assistant Professor of Physiology, 2520 Folsom, SF-sf
B.S., California, 1914; M.S., Harvard, 1916, D.Sc., 1918. Student, Yale Army Laboratory School, 1918; Assistant in Zoology, Harvard University, 1914-18, Assistant in Botany, 1918, Austin Teaching Fellow in Zoology, 1917–18; Assistant in Physiology, Radcliffe College, 1917, Assistant in Entomology, 1918; Instructor in Natural Sciences, Lowthorpe Horticulture School, 1915–18; Traumatic Shock Laboratory, A.E.F., 1918–19. At Stanford since 1919.

†Beach, Edward Latimer, (1234) PA 1612
Acting Assistant Professor of Naval and Military History, 1004 Emerson-p

Graduate, U. S. Naval Academy, 1888. Instructor, U. S. Naval Academy, 1901–03, 1906–08; Captain, U. S. Navy, retired. At Stanford since 1921.

†Beach, Walter Greenwood, (123) PA 1172R
Professor of Social Science, 540 University

A.B., Marietta, 1888; A.B., Harvard, 1891, A.M., 1892. Professor of Philosophy and History, Marietta College for Women, 1893–97; Student, Stanford University, 1897–98; Assistant Professor and afterward Professor and Head of Department of Economic Science and History, State College of Washington, 1898–1910; Professor of Social Science, University of Washington, 1910–17; Dean of College of Sciences and Arts, and Professor of Social Science, State College of Washington, 1917–20. At Stanford since 1920.

†Becking, Lawrence, (123) PA 386W
Assistant Professor of Physiology, 666 Tennyson-p

M.S., University of Utrecht, 1919, D.Sc., 1921; Ph.D., Stanford, 1921. At Stanford since 1920.

†Bennett, Merrill H., (123) PA 1264R
Instructor in English, 270 Kellogg-p

Ph.B., Brown, 1920, A.M., 1921.

†Bentinck, Richard C., (123)
Acting Instructor in English and Dramatics, Sant Cruz ave.

†Bingham, Joseph Walter, (123) PA 1585W
Professor of Law, 653 Melville

A.B., Chicago, 1902, J.D., 1904. In practice of law, Chicago, 1904–05; Acting Assistant Professor of Law, Cornell University, 1905–07; Professor of Law, University of Chicago, Summer Quarter, 1916. At Stanford since 1907.

†Blackwelder, Eliot, (23) PA 895R
Professor of Geology, Escondite Cottage

A.B., Chicago, 1901, Ph.D., 1914. Fellow and Assistant in Geology, University of Chicago, 1902–03; Paleontologist, Carnegie Institution Expedition to China, 1903–04; Instructor and afterward Professor of Geology, University of Wisconsin, 1905–16; Professor and Head of Department of Geology, University of Illinois, 1916–19; Lecturer in Geology, University of Chicago, 1907, 1916, Stanford University, 1919, Harvard University, 1921–22; Geologist, U. S. Geological Survey, 1902, 1906–18; Chief Geologist, Argus Oil Company, 1919–21; Manager, Teton Syndicate, 1921–22. At Stanford since 1922.

†Blaisdell, Frank Ellsworth, (1234) Pacific 3482
Associate Professor of Surgery, 1520 Lake, SF-sf

M.D., Cooper Medical College, 1889. Demonstrator of Anatomy, Cooper Medical College, 1903, Instructor in Biology and Embryology, 1900–09, in Histology, 1907–09, Assistant Professor of Anatomy, 1904–05, Associate Professor, 1907–12. At Stanford since 1910.

Blichfeldt, Hans Frederik, (123) PA 435
Professor of Mathematics, College Terrace

A.B., Stanford, 1896; Ph.D., Leipzig, 1898. At Stanford since 1898.

†Boardman, Walter Whitney, (123) Fillmore 2506
Associate Clinical Professor of Medicine (Actinography), 37 Walnut, SF-sf

M.D., Cooper Medical College, 1909. Assistant in Phipps Dispensary, Johns Hopkins Hospital, 1910, Assistant in Actinography and Externe in Gynecology, 1911. At Stanford since 1912.

†Boezinger, Bruno, (123) PA 798W
Associate Professor of German, Menlo Heights

A.B., Fort Worth University, 1894, A.M., 1895; Ph.D., Stanford, 1910. Instructor in German, North Texas Normal School, 1895–98; Principal, German Department, San Antonio (Texas) H. S., 1899–1906; Instructor in German, Summer School, University of Texas, 1896. At Stanford since 1906.

†Bolt, Richard Arthur, (4) Berkeley 313
Lecturer in Education (Summer Quarter),
cor. Ridge and Highland, Berkeley-b

A.B., Michigan, 1904, M.D., 1906; Gr. Pub. Health, California, 1917. Acting Medical Director, Babies' Dispensary and Hospital, Cleveland (Ohio), 1909–10; Physician to American Indemnity College, Peking (China), 1911–16; Chief of Bureau of Child Hygiene, Cleveland, 1917–18; Director of Child Welfare, Red Cross Commission to Italy, 1918–19; Director, Alameda County Public Health Center, and Medical Director of Schools of Oakland and Berkeley, 1919–20; General Director, American Child Hygiene Association, since 1920.

†Boyle, Charles Emerson, Jr., (123) PA 812W
Assistant Professor of Military Science and Tactics
(Field Artillery), 1060 High-p

A.B., Stanford, 1915. Captain, Field Artillery, U. S. A. At Stanford since 1920.

Brand, Elizabeth Morgan, (4) PA 1270J
Secretary to Dr. Taylor, Food Research Institute, 3 Kingscote

†Brandsten, Ernst M., (123) PA 1355M
Associate Director of Encina Gymnasium, 912 Waverley

Teacher of Swimming, Municipal Baths, Stockholm, Sweden, 1905; Swimming Coach, Neptune Swimming Club, Stockholm, 1906, University of California, 1911, 1913–15. At Stanford since 1915.

Brandsten, Greta Johannsen (Mrs.), (1234) PA 1335M
Instructor in Physical Education, 912 Waverley

At Stanford since 1916.

†Briggs, William Dinsmore, (123) PA 260M
Associate Professor of English. 249 Lowell-p

A.B., Stanford, 1896; A.M., Harvard, 1899, Ph.D., 1900. Student, Johns Hopkins University, 1896–97; Instructor in English and German, University of Vermont, 1900–01; Instructor in English, Western Reserve University, 1901–06. At Stanford since 1906.

†Brooke, Tucker, (4)
Acting Professor of English (Summer Quarter),
220 Stanford Union

A.B., West Virginia, 1901, A.M., 1902; B.A., Oxford, 1906, B.Litt., 1907. Fellow in German, University of Chicago, 1903–04; Rhodes Scholar from West Virginia, Oxford University, 1904–07; Instructor in English, Cornell University, 1909; Instructor in English, Yale University, 1909–13, Professor since 1920; Exchange Professor, University of London, 1920.

Brown, Adelaide, (123) Pacific 999
Lecturer in Medicine (Child Hygiene), 45 16th ave., SF-sf

A.B., Smith, 1888; M.D., Cooper Medical College, 1892. Interne, New England Hospital, Boston, Mass., 1893; Studying in Germany, 1894; General Practice, San Francisco, since 1894; Obstetrician to Alexander Maternity, 1899–1915.

†Brown, Harold Chapman, (123) PA 1006
Associate Professor of Philosophy, Cooksey Lane

A.B., Williams, 1901; A.M., Harvard, 1903, Ph.D., 1905. Student, University of Berlin, 1903–04; Assistant in Philosophy, Harvard University, 1904–06; Instructor in Philosophy, Columbia University, 1906–14. At Stanford since 1914.

Brown, Joseph Grant, (123) PA 461M
Assistant Professor of Physics, 1013 Ramona-p

A.B., Stanford, 1901, A.M., 1903. Graduate, Illinois State Normal University, 1894, Instructor in Physics and Chemistry, 1894–98. At Stanford since 1900.

Buckingham, Elisabeth Lee, (34) PA 964J
Assistant Professor of English, 19 Salvatierra

A.B., Stanford, 1910, A.M., 1914. Student, Columbia College of Expression, Summer, 1913; Teacher of Public Speaking, State Normal School, San Jose, 1914; Student, Columbia University, 1917–18, and Summer Sessions, 1916, 1919. At Stanford since 1911.

Bunnell, Sterling, (123) West 1400
Lecturer in Surgery (San Francisco Hospital), 516 Sutter, SF-sf

B.S., M.D., California, 1908. Interne, St. Luke's Hospital, San Francisco, 1909; Assistant in Surgery, University of California, 1912–13; Assistant in Gynecology, St. Luke's Hospital, 1915–17; Service in Gynecology, Polyclinic, 1915, in Surgery, 1916, 1917, 1920; M.C., U.S.A., 1917–18. At Stanford since 1919.

Bunting, Helen Masters, (123)
Assistant Professor and Director of Physical Education, San Juan

Graduate, Department of Hygiene, Wellesley College, 1912. Instructor in Physical Education, Centenary Collegiate Institute, Hackettstown (N. J.), 1912–14; Director, Physical Education for Women, University of Colorado, 1914–19. At Stanford since 1919.

†Burlingame, Leonas Lancelot, (123) PA 1144
Associate Professor of Botany, 24 Alvarado

Ph.B., Ohio Northern University, 1901; A.B., Chicago, 1906, Ph.D., 1908. Instructor in Biology, Ohio Northern University, 1901–04; Fellow in Botany, University of Chicago, 1906, Assistant, 1906–08. At Stanford since 1908.

†Burrows, John Robert, (123) Fillmore 2833
Assistant Clinical Professor of Surgery (Anesthesia), 2238 California

M.D., Cooper Medical College, 1906. Assistant in Ophthalmology, Cooper Medical College, 1909; Assistant Anesthetist, Lane Hospital, since 1910.

†Butler, Edmund, (123) Fillmore 1985
Assistant Clinical Professor of Surgery, 2469 Jackson, SF-sf

M.D., Cooper Medical College, 1911. Resident Surgeon and Senior Interne in Surgery, Lane Hospital, 1912–14; Surgeon, Municipal Emergency Hospital since 1914; Associate Member of Staff of St. Luke's Hospital since 1914.

†Cady, Vernon Mosher, (12)
Special Investigator in Education (U. S. Interdepartmental Social Hygiene Board), 1770 Emerosn

B.S., California, 1908; A.M., Columbia, 1917.

CAMPBELL, DOUGLAS HOUGHTON, (1234) PA 1036
Professor of Botany, County Road

Ph.M., Michigan, 1882, Ph.D., 1886. Teacher of Biology, Detroit High School, 1882–86; Student at Bonn, Tübingen, and Berlin, 1886–88; Professor of Botany, Indiana University, 1888–91. At Stanford since 1891.

†CANNING, JOHN BENNETT, (124) PA 1013J
Assistant Professor of Economics, 1535 Bryant

Ph.B., Chicago, 1913. Graduate Scholar in Political Economy, University of Chicago, 1913-14, Assistant, 1914–15, Instructor, 1915–17. At Stanford since 1919.

†CARNAHAN, DAVID HOBART, (4) PA 1365
Acting Professor of Romanic Languages (Summer Quarter), 33 Salvatierra

A.B., Illinois, 1896, A.M., 1898; Ph.D., Yale, 1905. Student, Sorbonne, Paris, 1898–99; Assistant in Romanic Languages, University of Chicago, 1899–1900; Professor of Modern Languages, University of Idaho, 1900–01; Assistant Professor of Romanic Languages, University of Illinois, 1901–03, 1905–06; Associate Professor, 1906–17, Professor since 1917, Assistant Dean for Foreign Students since 1920.

CARPENTER, CHARLES E., (4) PA 1680
Acting Professor of Law (Summer Quarter), Stanford Union

A.B., Kansas, 1903, A.M., 1904; LL.B., Harvard, 1908. Fellow in Sociology and History, University of Kansas, 1902–04. Professor of Law, University of North Dakota, 1909–14, University of Illinois, 1914–18, Washburn College, 1919–22, Dean, 1920–22; Professor of Law, University of Oregon, since 1922.

CARPENTER, FRANCIS BENTON, (123) Pacific 1677
Lecturer in Gynecology, 3966 Washington, SF-sf

M.D., Columbia College, 1883. Externe, Chambers Street Hospital, N. Y., 1883; Visiting Physician, Hospital for the Insane, Honolulu, 1884–85; Gynecologist, St. Luke's Hospital, San Francisco, 1900–18; Gynecologist, San Francisco Polyclinic, 1900–18; Gynecologist, San Francisco Hospital, 1902–18.

†CARRUTH, WILLIAM HERBERT, (123) PA 1685W
Professor of Comparative Literature, Matadero ave., Mayfield-m

A.B., Kansas, 1880, A.M., 1883; A.M., Harvard, 1889, Ph.D., 1893. Student, Universities of Berlin and Munich, 1885–86; Morgan Fellow at Harvard University, 1888–89; Instructor in English, University of Kansas, 1879–80, Assistant Professor of Modern Languages, 1880–82, Professor, 1882–89, Professor of German, 1889–1913, Vice-President, 1901–13; Professor of German Literature, University of Wisconsin, Summer Session, 1907; President, Central Division American Modern Language Association, 1894–97. At Stanford since 1913.

†CATHCART, ARTHUR MARTIN, (1234) PA 197
Professor of Law, 1215 Emerson

A.B., Stanford, 1896. Student, Harvard University, 1896–97; Attorney at Law, Colorado Springs (Colo.), 1903–04; Lecturer in Law, University of California. Summer Session, 1908; Professor of Law, University of Chicago, Summer Quarter, 1911. At Stanford since 1904.

†CATTON, JOSEPH HENRY, (123) Fillmore 94
Clinical Instructor in Medicine (Neurology), 2511 Octavia, SF-sf

B.S., California, 1911; M.D., California, 1913. Voluntary Assistant in Medicine, University of California, 1914–16, Assistant in Medicine, 1916; Chief of Medical Clinic, San Francisco Polyclinic, 1917–19; Assistant Visiting Physician, San Francisco Hospital, 1914–17, Visiting Physician, 1917; Major, M.C., U. S. A. At Stanford since 1919.

CHAMBERLAIN, WILLIAM EDWARD, (123) Sunset 130
Assistant Professor of Medicine (Radiology), and Director of the X-Ray Laboratory, 11 San Leandro Way, SF-sf

B.S., California, 1913, M.D., 1916. Assistant in Roentgenology, University of California Medical School, 1916–17; Visiting Roentgenologist to the French Hospital, San Francisco, 1917; Roentgenologist of U. S. Navy Base Hospital No. 2, 1917–18; Instructor in Roentgenology, University of California Medical School, 1919–20; Roentgenologist in Charge, Children's, Hahnemann, and St. Mary's Hospitals, San Francisco, 1919–20. At Stanford since 1920.

†CHENEY, WILLIAM FITCH, (123) Pacific 2573
Clinical Professor of Medicine, 33 Spruce, SF-sf

B.L., California, 1885; M.D., Cooper Medical College, 1889. Professor of Principles and Practice of Medicine, Cooper Medical College, 1898–1912. At Stanford since 1909.

†CLARK, ARTHUR BRIDGMAN, (124) PA 1023
Professor of Education (Graphic Art), 4 Cabrillo

B.Ar., Syracuse, 1888, M.Ar., 1891. Director of Trade Schools and Instructor in Drawing, New York State Reformatory, Elmira (N. Y.), 1888–89; Instructor in Architecture, Syracuse University, 1889–92; Student in Painting, New York School of Art and Académie Carmen, Paris, 1898–99; Instructor in Pottery, California School of Arts and Crafts, Berkeley, Summer Session, 1913, 1914; Director, San Francisco Art Association, 1917; Lecturer, California School of Fine Arts, 1919–20. At Stanford since 1892.

CLARK, GEORGE THOMAS, (1234) PA 1571M
Librarian, 1729 Emerson

B.S., California, 1886. Assistant Librarian, University of California, 1886–87; Deputy State Librarian, California State Library, 1887–90, Classifier, 1890–94; Librarian, San Francisco Public Library, 1894–1907. At Stanford since 1907.

†CLARK, JAMES CAMERON, (123) PA 1578M
Associate Professor of Electrical Engineering, 535 Embarcadero-p

B.S., Iowa State College, 1907; M.E.E., Harvard, 1912; E.E., Iowa State College, 1917. Engineering Apprentice Course, Westinghouse Electric & Manufacturing Company, 1907–09; Instructor in Electrical Engineering, Case School of Applied Science, 1909–11; Transformer Engineering Specialist, General Electric Company, 1919–20. At Stanford since 1912.

†CLARK, WILLIAM REDWOOD PRICE, (123) West 1827
Associate Clinical Professor of Medicine (Tuberculosis), 2710 Filbert, SF-sf

M.D., Cooper Medical College, 1899. Assistant Visiting Physician, City and County Hospital, San Francisco, 1901–04; Instructor in Medicine, Cooper Medical College, 1905–11; Visiting Physician, Clinic of the San Francisco Association for the Study and Prevention of Tuberculosis, 1909–12; Visiting Physician, City and County Tuberculosis Hospital, San Francisco, 1911–12. At Stanford since 1911.

CLARK, JOHN MAURICE (3)
Acting Professor of Economics, 262 Kingsley-p

A.B., Amherst, 1905; A.M., Columbia, 1906, Ph.D., 1910. Instructor in Economics and Sociology, Colorado College, 1908–10; Associate Professor of Economics, Amherst College, 1910–15; Associate Professor of Political Economy, University of Chicago, since 1915.

CLYDE, PAUL HIBBERT, (123) PA 414R
Instructor in Journalism, 640 Waverley

A.B., Stanford, 1920. At Stanford since 1920.

†COESTER, ALFRED, (234) PA 340J
Assistant Professor of Romanic Languages, 435 Homer

A.B., Harvard, 1896, A.M., 1906, Ph.D., 1906. Student, University of Seville, Spain, 1901–02, University of Berlin, 1894–95, Sorbonne, 1895; Secretary-Treasurer, American Association of Teachers of Spanish, since 1917; Associate editor *Hispania;* Caballero de la real orden de Isabel la Católica; Corresponding member, Hispanic Society of America. At Stanford, Summer Quarter, 1919, and since 1920.

†COLLINS, LEROY PIERCE, (123) PA 883
Professor of Military Science and Tactics (Field Artillery), 17 Salvatierra

Major, Field Artillery, U. S. A. At Stanford since 1919.

†COONEY, HAROLD A., (123) PA 497J
Assistant Professor of Military Science and Tactics (Field Artillery), Cowper Court

†COOPER, WILLIAM ALPHA, (234) PA 593
Professor of German, 35 Salvatierra

A.B., Marietta, 1892, A.M., 1897, Litt.D., 1917. Student, Universities of Bonn, Leipzig, and Paris, 1892–94; Instructor in German and French, Marietta College, 1895–99, Professor, 1899–1901. At Stanford since 1901.

†COOVER, JOHN EDGAR, (123) PA 933
Fellow in Psychic Research, and
Associate Professor of Psychology, 11 Salvatierra

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1912. Principal, Como (Colo.) Schools, 1898–99; Principal, Sonora (Cal.) High School, 1905–07, Dixon High School, 1907–10; Assistant in Psychology, Stanford University, 1910–12; Captain, Sanitary Corps, U. S. A., Psychological Division, Medical Research Laboratory (Military Aeronautics), 1918–19. At Stanford since 1910.

[COSGRAVE, MILLICENT MARY, West 1951
Assistant Clinical Professor of Medicine (Pediatrics), 2619 Octavia, SF-sf

M.D., Cooper Medical College, 1902. Assistant, Children's Clinic, Cooper Medical College, 1904–08; Assistant, Medical Clinic, San Francisco Polyclinic, 1904–13; Chief, Gynecological Clinic, San Francisco Fruit and Flower Mission, 1906–13.]

†COSTIGAN, GEORGE PURCELL, JR., (4) PA 1077
Acting Professor of Law (Summer Quarter), 3 Santa Ynez

A.B., Harvard, 1892, A.M. and LL.B., 1894; LL.D., University of Nebraska, 1913. In practice, Salt Lake City (Utah), 1894–99, New York City, 1899–1900, Denver (Colo.), 1900–05; Instructor in Law, Denver University Law School, 1900–04, Professor, 1904–05; Dean, University of Nebraska College of Law, 1907–09; Professor of Law, Northwestern University, 1909–22; Professor of Law, University of California, since 1922; Professor of Law, University of Chicago, Summer Quarters, 1917, 1920, Stanford University, Summer Quarter, 1918.

†COTTRELL, EDWIN ANGELL, (123) PA 109
Professor of Political Science, 257 Kingsley

B.A., Swarthmore, 1907; M.A., Harvard, 1913. Instructor in Political Science, Pennsylvania State College, 1907–11, Assistant Registrar, 1909–11; Assistant in Government. Harvard University, 1911–15; Swarthmore Fellow, 1912–13; Instructor in Government, Wellesley College, 1912–17; Lecturer in Constitutional Government, Brown University, 1915–16; Secretary of the Boston Budget Commission, 1915; Assistant Secretary, Boston Chamber of Commerce, 1916–17;

Executive Secretary, Massachusetts Health Insurance Commission, 1917; Professor of Political Science, and Director of the Bureau of Governmental Research, Ohio State University, 1917–19; Special Investigator, United States Bureau of Efficiency, 1918; Visiting Lecturer in Government, Harvard University, Spring, 1922. At Stanford since 1919.

†Cowan, John Francis, (123) Pacific 4138
Associate Professor of Surgery, 587 15th ave., SF-sf

A.B., Stanford, 1902; M.D., Cornell University Medical College, 1910. Assistant and Acting Instructor in Physiology, Stanford University, 1903–06; Instructor in Physiology, Cornell University Medical College, 1906–09; Interne, New York Hospital, 1910–12, Resident Surgeon, 1912–13. At Stanford since 1913.

Cox, Catharine Morris, (123) PA 1031J
Instructor in German, 25 Alvarado

A.B., Stanford, 1912, A.M., 1913. Student, Universities of Jena and Berlin, 1913–14. Assistant Professor of German, College of the Pacific, 1914–15, Professor, 1915–20, Director of Physical Education of Women, 1918–20. At Stanford since 1921.

†Crook, Welton Joseph, (123) PA 1035
Associate Professor of Metallurgy, 9 San Juan

A.B., Stanford, 1911, Engineer, 1919. Chemist and Assayer, Department of Mines and Water Supply, Victorian Government, Australia, 1907–08; Assistant, Department of Metallurgy, Stanford University, 1910; Chief Chemist, Pacific Coast Steel Company, South San Francisco, 1911–13; Professor of Metallurgy, State School of Mines, South Dakota, 1913–17; Metallurgical Chemist, U. S. Bureau of Mines, P. P. I. E., 1915; Metallurgist and Chief Chemist, Pacific Coast Steel Company, 1917–19, Metallurgist and Chief Inspector, 1919–20, Chief Metallurgist, 1920–21; Coöperating analyst, U. S. Bureau of Standards, since 1920. At Stanford since 1921.

†Cross, Charles Norman, (123) PA 526W
Associate Professor of Mechanical Engineering, 26 Alvarado

M.E., Cornell, 1906. Assistant Engineer, Long Island State Hospital, Brooklyn (N.Y.), 1905; Dynamo and Switchboard Attendant with the New York Edison Co., New York City, 1905–06; Electrician with the Lackawanna Steel Co., Buffalo (N. Y.), 1906; with Turbine Research Department of General Electric Company, Lynn (Mass.), 1914–15. At Stanford since 1906.

†Cubberley, Ellwood Patterson, (123) PA 1019
Professor of Education, and Dean of School of Education, 12 Cabrillo

A.B., Indiana, 1891; A.M., Columbia, 1902, Ph.D., 1905. Instructor in Science, Ridgeville College (Ind.), 1891; Professor of Physical Science, Vincennes University (Ind.), 1891–93, President, 1893–96; Superintendent of City Schools, San Diego (Cal.), 1896–98; Honorary Fellow, Columbia University, 1901–02, 1904–05; Professor of Education, University of California, Summer Sessions, 1901, 1906, University of Chicago, Summer Quarter, 1910, Harvard University, second half-year, 1910–11; Visiting Professor, Columbia University, Summer Sessions, 1907, 1914, 1916, second half-year, 1915–16. At Stanford since 1898.

†Culver, George Bliss, (1243) PA 1365
Dean of Men, 33 Salvatierra

A.B., Stanford, 1897; LL.B., George Washington University, 1902. With Smithsonian Institution, Washington (D. C.), 1898–99; Head of Biological Department, Los Angeles High School, 1907–20. At Stanford since 1920.

†Cushing, Oscar Kennedy, (123) Pacific 987
Lecturer in Law, 37 7th ave.. SF-sf

†Cutter, Lawrence Edminster, (123) PA 459M
Associate Professor of Mechanical Engineering, 627 Webster-p

A.B., Stanford, 1906. Machinist Apprentice and Journeyman, Union Iron Works, San Francisco, 1895–99, 1899–1902, 1903, 1904, Draftsman, 1905, 1906. At Stanford since 1906.

Cutting, James Arthur, (123) San Jose 1728
Clinical Instructor in Medicine (Psychiatry), Agnew-a

A.B., Stanford, 1906; M.D., Cooper Medical College, 1911. Interne, Lane Hospital, 1911–12, Senior Medical Interne and House Officer, 1912–13; Assistant Physician, Agnew State Hospital, since 1913.

†Cross, Tom Peete, (3)
Acting Professor of English (Spring Quarter), 10 Mirada

A.B., Hampden-Sidney, 1899, B.S., 1900; A.M., Harvard, 1906, Ph.D., 1909. Instructor in English and Mathematics, Hampden-Sidney College, 1899-1900; Instructor in English, Harvard University, 1910–11; Professor of English, Sweet Briar College, 1911–12, University of North Carolina, 1912–13; Associate Professor of English and Celtic, University of Chicago, since 1913.

†Danforth, Charles Haskell, (123) PA 1596W
Associate Professor of Anatomy, 951 Bryant-p

A.B., Tufts, 1908, A.M., 1910; Ph.D., Washington University, 1912. Fellow in Biology, Tufts College, 1908, Instrucotr, 1910–11; Teaching Fellow in Anatomy, Harvard Medical School, 1910–11; Instructor in Anatomy, Washington University School of Medicine, 1908–14, Associate, 1914–16, Associate Professor, 1916–22. At Stanford since 1922.

†Davidson, Percy Erwin, (234) Menlo Park 1243W
Associate Professor of Education, Menlo Heights

A.B., Stanford, 1898; A.M., Harvard, 1905; Ph.D., Columbia, 1914. Teacher, Grammar and High Schools, San Diego (Cal.), 1898–1900; Supervisor of History and English Teaching, San Francisco State Normal School, 1900–03; Assistant in Education, San Diego State Normal, 1903–04; Graduate Student, Teachers' College, Columbia University, 1905–07; Instructor in Logic and History of Education, New York Training School for Teachers, 1906–07. At Stanford since 1907.

†Davis, Charles Wesley, (123)
Director of Intramural Sports, 745 Cowper

B. P. E., Y. M. C. A. College, Springfield (Mass.), 1918. U. S. Navy, 1918; Physical Director, Madison, N. J., 1919–21, Cleveland Heights High School, Cleveland, O, 1921–22; sometime Athletic Director, Boys' Camps, Maine, Playground Instructor, Brookline, Mass.; Commissioner, Boy Scouts, Madison, N. J.; Swimming Instructor, Venice, Calif. At Stanford since 1922.

[Davis, Gordon Arthur, PA 964W
Instructor in English and Dramatics, 19 Salvatierra

A.B., Stanford, 1920. At Stanford since 1920.]

†Davis, Joseph Stancliffe, (1234) PA 895R
Director, Food Research Institute, 23 Mirada

A.B., Harvard, 1908, Ph.D., 1913. Instructor in Economics and Sociology, Bowdoin College, 1912–13; Instructor in Economics, Harvard University, 1913–17; Tutor in the Division of History, Government, and Economics, Harvard University, 1914–20; Assistant Professor of Economics, Harvard University, 1917–21; Assistant Statistician, American Shipping Mission and Statistician of the Allied Maritime Transport Council, London, 1918–19. At Stanford since 1921.

Davis, Mildred, (12) PA 412M
Reference Librarian, Hoover War Library, 555 Lytton-p

DEEDS, FLOYD, (123) West 9158
Instructor in Pharmacology, 2504 Sacramento, SF-sf

A.B., Western Reserve, 1916, A.M., 1920. Demonstrator in Biochemistry, Western Reserve University, 1916–17, 1919–20; Assistant, Pathological Laboratory, Base Hospital No. 4, Rouen, France, 1917–19; 2d Lieutenant, Sanitary Corps, U. S. A., 1918; Teaching Assistant in Biochemistry, Harvard Medical School, 1920–21. At Stanford since 1921.

DEMPSTER, ARTHUR JEFFREY, (4) PA 1025
Acting Assistant Professor of Physics (Summer Quarter), Madroño

A.B., Toronto, 1909, A.M., 1910; Ph.D., Chicago, 1916; 1851 Exhibition Scholar, Munich and Würzburg, 1912–14; Assistant in Physics, University of Chicago, 1916, Instructor, 1917–19, Assistant Professor since 1919.

†DICKSON, ERNEST CHARLES, (123) Sunset 4298
Associate Professor of Medicine, 155 San Fernando Way, SF-sf

B.A., Toronto, 1904, M.B., 1906, M.D., 1917. Assistant Demonstrator in Physiology, University of Toronto, 1904–05, George Brown Research Scholar, 1906–07; Assistant Resident Physician, Johns Hopkins Hospital, 1907–08; Instructor in Pathology and Bacteriology, Cooper Medical College, 1908–10; Fellow in Rockefeller Institute for Medical Research, 1910–13. At Stanford since 1910.

†DIETRICH, WALDEMAR FENN, (123) PA 1201R
Associate Professor of Metallurgy, 1320 Webster

A.B., Stanford, 1913, Engineer, 1914. Acting Instructor in Mining, Stanford University, 1913–14; Engineer with Copper Queen Consolidated Mining Company, Bisbee (Ariz.), 1914–15; Engineer and later Assayer with Consolidated Arizona Smelting Company, Humboldt (Ariz.), 1916. At Stanford 1913–14, and since 1916.

†DILLON, JAMES ROOT, (1234) Fillmore 3071
Assistant Clinical Professor of Surgery (Genito-Urinary), 2664 Greenwich, SF-sf

A.B., Stanford, 1908; M.D., Cooper Medical College, 1912. At Stanford since 1913.

†DOANE, RENNIE WILBUR, (123) PA 792R
Associate Professor of Entomology, 527 Homer

A.B., Stanford, 1896. Assistant in Zoology and Botany, Washington State College, 1896–99, Assistant Professor of Zoology and Entomology, 1899–1901; Superintendent, Fisheries Experiment Station, Keyport (Wash.), 1901–03. At Stanford since 1905.

DONOVAN, MONICA, (123) Franklin 5400
Clinical Instructor in Medicine (Actinography), 1499 Sutter, SF-sf

A.B., Stanford, 1914, M.D., 1917. At Stanford since 1917.

†DREW, ELMER REGINALD, (123) PA 1181W
Assistant Professor of Physics, 1321 Waverley-p

B.S., California, 1888; Ph.D., Cornell, 1903. Student, University of Chicago, 1897–98, University of Berlin, 1903–05; Assistant in Physics, University of California, 1889–92, Instructor, 1892–1902. At Stanford since 1905.

†DURAND, WILLIAM FREDERICK, (123) PA 1582
Professor of Mechanical Engineering, 11 Cabrillo

Graduate, U. S. Naval Academy, 1880; Ph.D., Lafayette, 1888. Engineer Corps, U. S. Navy, 1880–87; Special Duty as Assistant Professor of Mechanical

Engineering, Lafayette College, 1883–85, Worcester Polytechnic Institute, 1887; Professor of Mechanics and Superintendent of Mechanical Department, Michigan State Agricultural and Mechanical College, 1887–91; Professor of Marine Engineering and Principal, Graduate School of Naval Architecture and Marine Engineering, Cornell University, 1891–1904. At Stanford since 1904.

†ECKART, WILLIAM RANKINE, (123) PA 227
Professor of Mechanical Engineering, 1445 Bryant-p

M.E., Cornell, 1895. Mechanical Engineer, Siemens Halske Electric Co., Chicago, 1895–96; Construction Engineer, Allison Ranch Mine, Grass Valley (Cal.), 1896–98; Testing Work for Fraser & Chalmers, in Hawaii and Mexico, 1898–99; with W. R. Eckart, Consulting Engineer, Hydraulic Power Plants and Mining Work, 1899–1903, summers of 1904–14; Consulting Engineer, Geary St. P. & O. R. R., San Francisco, 1902–06, Columbia Steel Company since 1915, C. F. Braun & Co. since 1918. At Stanford since 1903.

†ELDRED, WILFRED, (123) PA 1181R
Associate, Food Research Institute, 410 Churchill-p

A.B. and A.M., Washington and Lee, 1909; A.M., Harvard, 1911, Ph.D., 1919. Thayer Scholar, Harvard University, 1910–11, Harris Fellow, 1911–12, Instructor in Economics, 1912–14; Instructor in History and Economics, San Diego High School and Junior College, 1914–15; Instructor in Economics, Stanford University, 1915–17; Special Agent, Federal Trade Commission, 1917–18, United States Food Administration, 1918–19; Statistician, United States Grain Corporation, 1919–20; Associate Professor of Business Administration, University of Virginia, since 1920 (on leave, 1921–22). At Stanford 1915–17 and since 1920.

†ELLIOTT, ORRIN LESLIE, (1234) PA 1045
Registrar, 5 Cabrillo

Ph.B., Cornell, 1885, Ph.D., 1890. Fellow in History and Political Science, Cornell University, 1885–86, Instructor in English, 1886–91, Assistant Registrar and President's Secretary, 1890–91. At Stanford since 1891.

†ELMORE, JEFFERSON, (1234) PA 1604W
Associate Professor of Classical Literature, 11 Alvarado

A.B., Stanford, 1895, A.M., 1895, Ph.D., 1901. Principal of Merced County High School, 1895–97; Student, Universities of Bonn and Berlin, 1901–02. At Stanford since 1898.

ELOESSER, LEO, (1324) Prospect 3954
Associate Clinical Professor of Surgery, 135 Stockton, SF-sf

B.S., University of California, 1900; M.D., Heidelberg, 1907. Volunteer Assistant, Surgical Clinic, Heidelberg, 1906; Assistant, Cancer Institute, Heidelberg, 1906–07; Volunteer Assistant, Royal Surgical Clinic, Kiel, 1908–09; Volunteer Assistant, August Hospital, Berlin, 1909; Assistant in Surgery, University of California, 1910–12; Surgeon to Reserve Hospital Ettlingen and Reserve Hospital III, IV, V, Karlsruhe, 1915–16; Major, M. C., U. S. A., 1918; Chief of Orthopedic Service, Letterman General Hospital, 1918–19. At Stanford since 1913.

†ELY, LEONARD WHEELER, (1234) PA 46
Associate Professor of Surgery (Orthopedics), 1010 Bryant-p

A.B., Columbia, 1889; M.D., College of Physicians and Surgeons, Columbia University, 1895. At Stanford since 1913.

†EMERSON, JAMES GORDON, (1234) PA 1627M
Assistant Professor of English (Public Speaking), Kingscote

B.S., Iowa State College, 1912; J.D., Stanford, 1915. Student, Harvard Law School, 1912–13, University of California Law School, Summer Session, 1914; Instructor in Public Speaking, Kansas State Agricultural College, 1915–16, Assistant Professor, 1916–17, Professor and Department Head, 1917–21; Military service in America and France (Signal Corps), 1918–19.

†Emge, Ludwig Augustus, (1234) Park 6964
Assistant Professor of Obstetrics and Gynecology,
109 Edgewood, SF-sf

B.S., Chicago, 1912; M.D., Rush Medical College, 1914. Assistant in Anatomy, University of Chicago, 1912–13; Special Worker in Pathology, Rush Medical College, 1913–14; Interne, Memorial Institute for Infectious Diseases and Presbyterian Hospital, 1914–15; Resident and Assistant in Gynecology and Obstetrics, University of California Hospital, 1915–17. At Stanford since 1917.

†Erwin, Ernest S., (1234) PA 1042J
Accountant, 23 Alvarado

†Espinosa, Aurelio Macedonio, (1234)
Professor of Romanic Languages, 16 Salvatierra

A.B., Colorado, 1902, A.M., 1904; Ph.D., Chicago, 1909. Assistant in Romance Languages, University of Colorado, 1901–02, Instructor, Summer Terms, 1904, 1905; Professor of Romance Languages, University of New Mexico, 1902–10; Fellow in Romance Languages and Instructor in Spanish, University of Chicago, 1908–09; Lecturer in Spanish Language and Literature, Summer Sessions, University of Chicago, 1914, University of California, 1912, 1915, 1922; Associate Editor, *Journal of American Folk Lore*, since 1914; Editor, *Hispania*, since 1917; member of Advisory Editorial Board of *Inter-America*, since 1917; corresponding member of the Royal Spanish Academy, 1921; Comendador con Placa de la Orden de Isabel la Católica, 1922. At Stanford since 1910.

†Faber, Harold Kniest, (1234) Fillmore 3848
Associate Professor of Medicine (Pediatrics), 3300 Clay, SF-sf

A.B., Harvard, 1906; M.D., Michigan, 1911. Medical Interne, New York Hospital, 1911–13; Resident Pathologist, Babies' Hospital, New York, 1913–14; Fellow, Rockefeller Institute, New York, 1914–15. At Stanford since 1915.

†Fairclough, Henry Rushton, (123) PA 1028W
Professor of Classical Literature, 6 Cabrillo

A.B., Toronto, 1883, A.M., 1886, Litt.D., 1922; Ph.D., Johns Hopkins, 1896. Fellow in Classics, University College, Toronto, 1883–84; Classical and English Masters, Brockville High School, 1884–86; Graduate Scholar, Johns Hopkins University, 1886–87, Fellow, 1887; Lecturer in Greek and Ancient History, University College, Toronto, 1887–93; Professor of Latin, University of Wisconsin, Summer Session, 1906, Columbia University, Summer Session, 1908, University of Chicago, Summer Quarter, 1910; Professor of Latin, American School of Classical Studies, Rome, 1910–11; Order of St. Sava, Serbia, 1920; Officier de l'ordre la couronne, Belgium, 1920. At Stanford since 1923.

†Farrington, Guy Stevens, (123) Franklin 7768
Lecturer in Speech Defects, 2300 Van Ness, SF-sf

Assistant, Defective Speech Clinic in Pediatrics, University of California, 1915–16; Assistant, Defective Speech Clinic, San Francisco Public Schools, 1916; Assistant, Defective Speech Clinic, Oakland Public Schools, 1917; Chief of Clinic, Defective Speech, College of Physicians and Surgeons, 1918. At Stanford since 1918.

†Ferris, Gordon Floyd, (123) PA 1145M
Assistant Professor of Entomology, 667 Melville

A.B., Stanford, 1916, A.M., 1918. At Stanford since 1916.

†Fish, John Charles Lounsbury, (123) PA 1266
Professor of Railroad Engineering, 308 Lincoln-p

C.E., Cornell, 1892. Instructor in Civil Engineering, Cornell University, 1892–93; Division Engineer, Lake Shore & Michigan Southern Railway, 1906–08. At Stanford since 1893.

†Fisher, Arthur Lawrence, (1234) Fillmore 3620
Clinical Instructor in Surgery (Orthopedics), 3333 Jackson, SF-sf

B.S., California, 1896; M.D., Johns Hopkins, 1900. Resident House Officer, Johns Hopkins Hospital, 1900–01; Fellow, Rockefeller Institute for Medical Research, 1901–02; Assistant Visiting Surgeon, Mt. Zion Hospital, San Francisco, 1902–07; Assistant in Surgery, Lane Hospital, 1907–12; Assistant in Orthopedics, Stanford Medical School, 1912–16; Instructor in Orthopedic Surgery, University of California, 1916–19. At Stanford 1912–16, and since 1920.

†Fisher, Walter Kenrick, (234) Monterey 407W
Associate Professor of Zoology, . 844 Laurel, Pacific Grove-pg

A.B., Stanford, 1901, A.M., 1903, Ph.D., 1906. Assistant, U. S. Biological Survey, 1897–1901, 1903; Assistant, U. S. Fish Commission, 1902, 1904; Curator, Department of Invertebrate Zoology, California Academy of Sciences. At Stanford since 1902.

†Fletcher, Harold Augustus, (123) Franklin 1536
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology), 1815 California, SF-sf

B.S., California, 1912; M.D., Stanford, 1916. Interne, Lane Hospital, 1916–17; M. R. C., U. S. N., 1918–19. At Stanford since 1919.

Fletcher, William Daly, (123) PA 970
Graduate Manager of Athletics, Stanford Union

A.B., Stanford, 1916.

†Foster, Benjamin Oliver, (123) PA 245R
Associate Professor of Classical Literature, 22 Lausen

A.B., Stanford, 1895; A.M., Harvard, 1897, Ph.D., 1899. Parker Fellow of Harvard University, studying in the American School of Classical Studies in Rome, 1899–1900; Acting Professor of Latin and Greek, State Normal College of Michigan, 1900–01; Instructor, University of California, Summer Session, 1908. At Stanford since 1901.

†Franklin, Edward Curtis, (123) PA 216
Professor of Organic Chemistry, and Dean of Gradutae Study, 16 Mirada

B.S., Kansas, 1888, M.S., 1890; Ph.D., Johns Hopkins, 1894. Chemist to Palo Alto Plantation and Sugar Factory, Donaldsville (La.), 1888; Chemist to the Bella Vista Mining and Milling Co., Los Quemados, Costa Rica, 1897; Instructor in Chemistry, University of Kansas, 1888–90; Student, University of Berlin, 1890–91; Assistant in Chemistry, University of Kansas, 1891–93, Associate Professor, 1894–99, Professor of Physical Chemistry, 1899–1903; Member of the U. S. Assay Commission, 1907; Chief of the Division of Chemistry, U. S. Public Health Service, Washington (D. C.), 1911–13; Member Advisory Board, Bureau of Mines, Washington (D. C.), 1917–18; Physical Chemist, Bureau of Standards, 1918; Consulting Chemist, Ordnance Bureau, 1918. At Stanford since 1903.

†Friend, Will A., (1234) PA 515J
Superintendent of the University Press, 21 Alvarado

†Gardner, David Charles, (123) PA 1068
Chaplain, and Lecturer on Biblical History and Literature, 1a Alvarado

Graduate, Church Divinity School of the Pacific, 1897, D.D., 1920. Curate St. James Mission, San Francisco, 1898; Rector of All Saints Church, Palo Alto, 1898–1902. At Stanford since 1902.

†GERMANN, ALBERT FREDERICK OTTOMAR, (124) PA 993J
Assistant Professor of Chemistry, 1035 Parkinson-p

A.B., Indiana, 1909, A.M., 1910; A.M., Wisconsin, 1910; Sc.D., Université de Genève, Suisse, 1912. Teaching Fellow in Chemistry, Indiana University, 1909; Assistant in Chemistry, University of Wisconsin, 1909–10; Student, Universities of Geneva and Berlin, 1910–12; Instructor in Chemistry, Adelbert College and the College for Women, Western Reserve University, 1913–15. Assistant Professor of Chemistry, 1915–21, Associate Professor, 1921; Professor of Chemistry, Cleveland Training School for Nurses, 1918; in charge of instruction in Chemistry, Cleveland School of Education, Summer Sessions, 1917–21. At Stanford since 1921.

†GIBBONS, HENRY WALTER, (123) Fillmore 3740
Assistant Clinical Professor of Obstetrics and Gynecology, 3491 Pacific, SF-sf

B.S., University of California, 1899; M.D., Cooper Medical College, 1902. Instructor in Pathology, Cooper Medical College, 1905–07, Instructor in Gynecology, 1907–11. At Stanford since 1912.

†GIBBONS, MORTON RAYMOND, (123) Pacific 1658
Lecturer on Medical Aspect of Insurance, 350 Post, SF-sf

A.B., University of California, 1891; M.D., Cooper Medical College, 1894. Instructor in Clinical Medicine, Cooper Medical College, 1904–09. At Stanford 1909–16, and since 1919.

GILBERT, CHARLES HENRY, (12)
Professor of Zoology, 21 Salvatierra

B.S., Butler University, 1879; M.S., Indiana, 1882, Ph.D., 1883. Assistant in Natural Sciences and Modern Languages, Indiana University, 1880–84; Professor of Natural History, University of Cincinnati, 1884–89; Professor of Zoology, Indiana University, 1889–91; Assistant to the U. S. Bureau of Fisheries, since 1880; Assistant, in charge of scientific explorations of the U. S. S. "Albatross," 1889, 1890, 1902. 1904, 1906; in charge of salmon investigations for British Columbia since 1912. At Stanford since 1891.

†GILMAN, PHILIP KINGSNORTH, (123) West 9274
Associate Clinical Professor of Surgery, 350 Post, SF-sf

A.B., Stanford, 1901; M.D., Johns Hopkins, 1905. Assistant Resident Surgeon, Johns Hopkins Hospital, 1905–07; Assistant Professor of Pathology, Philippine Medical School, 1907–08; Assistant Professor of Surgery, College of Medicine and Surgery, University of the Philippines, 1908–12, Professor of Surgery and Chief of Department, 1912–16; Chief Surgeon, Philippine General Hospital, 1912–16; Lieutenant, M. C., U. S. N. R., 1917–19. At Stanford since 1916.

†GIRARD, FRANK ROBERT, (123) Douglas 2405
Assistant Clinical Professor of Obstetrics and Gynecology, 1201 Flood Bldg., SF-sf

M.D., California, 1903. Volunteer Assistant, Koenigliches Krankenhaus, Berlin, Germany, 1905–06; House Pathologist and House Surgeon, St. Luke's Hospital, New York, 1906–08; Assistant Resident Physician, Sloane Maternity Hospital, New York, 1908–09; Major, M. C., U. S. A., 1917–19; Chief, Surgical Service, Base Hospital No. 47, A. E. F., France. At Stanford since 1914.

†GODDARD, CHARLES BALDWIN, (1234) PA 522R
Assistant Registrar, 541 Seale

A.B., Stanford, 1904. Graduate Student, University of Wisconsin, Summer, 1910; Special Student, Washington University, St. Louis, Mo., 1915; Teacher of English, Yeatman High School, St. Louis, 1904–09, Assistant Principal, 1909–18; Teacher of English, Harris Teachers College, St Louis, Summer Sessions, 1914, 1915: District Representative, War Camp Community Service (Inc.), 1918–21. At Stanford since 1921.

[Golder, Frank Alfred,
Associate Professor of History,

A.B., Harvard, 1903, Ph.D., 1909. Instructor in History, University of Missouri, 1908–09, in History and Economics, Boston University, 1909, in History, University of Chicago, 1910; Assistant Professor of History, State College of Washington, 1910–14, Professor, 1915–20; Investigator in Russian Archives for Carnegie Institution, Washington (D. C.), 1914–15, for Carnegie Institution and American Geographical Society, 1917; Researches for U. S. Government, in connection with the War, 1917–18.]

Gottbrath, Norbert J., (123) Prospect 7416
Clinical Instructor in Medicine (Neurology),
2340 Van Ness, SF-sf

B.S., St. Mary's Institute (Dayton, O.), 1898; M.D., Georgetown University, 1912. Clinical Assistant, Neurological Institute, New York City, 1914–15; Attending Physician and Instructor, Vanderbilt Clinic, 1914–16.

Graham, Harrington Bidwell, (123) Prospect 4400
Associate Clinical Professor of Surgery (Otology),
Olympic Club, SF-sf

B.S., California, 1896, M.D., 1899. Superintendent of Waldeck Sanitarium, 1899; Assistant in Surgery, San Francisco Polyclinic, 1904; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1910–11; Lieutenant Commander, U. S. N. R. F., 1918–19. At Stanford since 1912.

Gray, Carolyn E., (4) PA 199
Director of Nursing (Summer Quarter), 9 Salvatierra

B.S. and A.M., Columbia University; Graduate, New York City Training School for Nurses. Sometime Superintendent of Nurses, New York City Training School for Nurses, New York State Inspector of Schools of Nursing, Instructor in the Department of Nursing and Health, Teachers College, Columbia, Secretary of the Educational Committee of the National League of Nursing Education, Member of the Committee of Survey of School of Nursing, under the Rockefeller Foundation; Associate Professor, and Director of Nursing Education, Western Reserve University.

[†Gray, Henry David, PA 1042R
Associate Professor of English, 22 Alvarado

Ph.B., Colgate, 1897; A.M., Columbia, 1898, Ph.D., 1904; Litt.D., Colgate, 1919. Assistant in German and French, Colgate Academy, 1896–97; University Scholar, Columbia University, 1898–1900; Instructor in Dramatic Literature, American Academy of Dramatic Arts, 1900–02; Instructor in English, University of Texas, 1902–05; Lecturer in English, Columbia University, Summer Session, 1905, University of Oregon, Summer Session, 1910, University of Illinois, Summer Session, 1912. At Stanford since 1905.]

Green, Boynton Morris, (123) PA 257J
Instructor in Mechanical Engineering, 752 Middlefield-p

A.B., Stanford, 1914, M.E., 1916. Student Engineer, H. Koffers Company, Pittsburgh, Pa., 1916; Draftsman and Construction Engineer, Federal Telegraph Company, 1917, 1919–21. At Stanford 1920, and since 1921.

†Green, Rufus Lot, (123) PA 1127J
Professor of Mathematics, 13 Salvatierra

B.S., Indiana, 1885, A.M., 1889. Instructor in Mathematics, Indiana University, 1885–86, Assistant Professor, 1886–88, Associate Professor, 1899–91, Professor of Pure Mathematics, 1891–93; Student, Johns Hopkins University, 1886–87. At Stanford since 1893.

†Greene, Charles Wilson, (4)
Acting Professor of Physiology (Summer Quarter), Pacific Grove-pg

A.B., Stanford, 1892, A.M., 1893; Ph.D., Johns Hopkins, 1898. Instructor in Zoology, Marine Biological Laboratory, Woods Hole (Mass.), 1896, 1897; Fellow in Physiology, Johns Hopkins University, 1897–98; Instructor in Physiology, Stanford University, 1892–98, Assistant Professor, 1898–1900; Professor of Physiology and Pharmacology, University of Missouri, since 1900.

Hadden, Elizabeth, (1234) PA 734W
Chief of Order Division, Library, 151 Kellogg-p

At Stanford since 1901.

†Hall, Howard Judson, (123) LA 10J
Assistant Professor of English, University, Los Altos

B.S., Michigan State Agricultural College, 1890; A.B., Stanford, 1896; A.M., Harvard, 1900. Professor of English, and Librarian, University of Arizona, 1891–1904; Instructor, Army Educational Corps, A. E. F. University, Beaune, Cote d'Or, France, 1919. At Stanford since 1904.

†Hanzlik, Paul John, (1234) San Mateo 1117
Professor of Pharmacology, 819 Prospect Row, SM-sm

Ph.C., Iowa, 1908; A.B., Illinois, 1908, A.M., 1911; M.D., Western Reserve, 1912. Demonstrator in Pharmacology, Western Reserve University, 1912–13, Instructor, 1913–15, Associate, 1915–17, Assistant Professor, 1917–20, Associate Professor, 1920–21. At Stanford since 1921.

†Harbaugh, Ross Wallace, (123) Sunset 3970
Clinical Instructor in Surgery, 2443 15th ave., SF-sf

A.B., Stanford, 1909, M.D., 1913. Resident Physician, St. Mary's Hospital, San Francisco, 1914–15; Assistant Medical Director, State Industrial Accident Commission, 1915–20; Assistant Medical Director, Western State Life Insurance Company, 1915–20. At Stanford since 1915.

†Harcourt, Robert Henry, (123) PA 1524W
Teaching Specialist in Forge Practice, 525 Lytton-p

Graduate, Santa Barbara State Normal School, 1917. Apprentice and Blacksmith with Risdon Iron Works, San Francisco, 1898–1901, 1903–04; with Hammond Car and Elevator Company, San Francisco, 1901–02, 1904–05; with National Iron Works, San Francisco, 1902–03; Toolman with Abner Doble Steel Company, San Francisco, 1905–06, Foreman of Forge Shop, 1906–07; Instructor in Machine Shop Practice, Forge Practice, and Sheet Metal Work, State Normal School, Santa Barbara, Summer Session, 1919. At Stanford since 1907.

†Harrison, George Russell, (134) PA 1439
Instructor in Physics, Reservoir Drive

A.B., Stanford, 1919, A.M., 1920, Ph.D., 1922. At Stanford since 1919.

†Hartman, George Washington, (123) Franklin 270
Lecturer on Genito-Urinary Surgery, 999 Sutter, SF-sf

B.S., California, 1903; M.D., Johns Hopkins, 1908. Resident Physician, French Hospital, New York City, 1908, Flushing Hospital, 1909; Adjunct in Urology, German Hospital, San Francisco, 1909–18; Urologist, Franklin Hospital, San Francisco, 1918; Chief, Urological Clinic, San Francisco Polyclinic, 1918; Chief of Clinic, San Francisco Hospital, 1917–18. At Stanford since 1919.

Haven, Maude Noble (Mrs.), (123) Fillmore 1151
Clinical Instructor in Medicine (Neurology), 611 Baker, SF-sf

Ph.B., California, 1894; M.D., Cooper Medical College, 1900. Assistant, Woman's Clinic, Children's Hospital, San Francisco, 1901–04. At Stanford 1914–15, and since 1917

HAYS, ALICE NEWMAN, (1234) PA 1052J
Reference Librarian, 3 Alvarado

A.B., Stanford, 1896; B.L.S., New York State Library School, 1903. Assistant, Home Education Department, New York State Library, 1901. At Stanford since 1901.

†HEATH, HAROLD, (123) PA 434J
Professor of Zoology, 1147 Ramona-p

A.B., Ohio Wesleyan, 1893; Ph.D., Pennsylvania, 1898; D.Sc., Ohio Wesleyan, 1919. Assistant in Biology, Ohio Wesleyan University, 1891–93; Professor of Biology, University of the Pacific, 1893–94; Harrison Fellow in Zoology, University of Pennsylvania, 1896–98. At Stanford since 1894.

†HENLINE, HENRY HARRISON, (123) PA 1335M
Assistant Professor of Electrical Engineering 159 Kellogg

B.S., Illinois, 1914. Instructor in Science and Mathematics, Oktaha (Okla.) H. S., 1914–15; Graduate Chicago Central Station Institute, 1916; with Commonwealth Edison Co., 1916–17. At Stanford since 1917.

†HEWLETT, ALBION WALTER, (1234) Fillmore 4477
Professor of Medicine, 2442 Union, SF-sf

B.S., University of California, 1895; M.D., Johns Hopkins, 1900. Assistant Professor of Theory and Practice of Medicine, Cooper Medical College, 1906–08; Professor of Internal Medicine, University of Michigan, 1908–16; Lieutenant-Commander U. S. N. R. F., 1917–19. At Stanford since 1916.

†HILL, HAROLD PHILLIPS, (123) Prospect 4136
Clinical Professor of Medicine, 2701 Larkin, SF-sf

A.B., Stanford, 1898; M.D., California, 1901. Assistant in Physiology, Department of Medicine, University of California, 1889–1901, Instructor, 1901–03; Assistant Visiting Physician, St. Luke's Hospital, 1903–06, Visiting Physician, since 1906. At Stanford since 1912.

†HILL, HENRY GRANVILLE, (123) SJ 1863
Lecturer in Law, 465 S. 15th, SJ-sj

A.B., Stanford, 1909, J.D., 1911.

HOISHOLT, ESTELLA, (4)
Lecturer in Graphic Art (Summer Quarter), 201 Roble

A.B., Stanford, 1922.

†HOLBROOK, EVANS, (4) PA 1196
Acting Professor of Law (Summer Quarter), Stanford Union

A.B., Stanford, 1897; LL.B., Michigan, 1900. In Practice, Chicago (Ill.), 1900–05; Instructor in Law, University of Michigan, 1905–10, Professor since 1910; Acting Professor of Law, University of California, 1918–19.

†HOLMAN, WILLIAM LUDLOW, (123) PA 1234W
Associate Professor of Bacteriology and Experimental Pathology, 1455 Webster

B.A., McGill, 1903; M.D.C.M., 1907. Anaesthetist, Royal Victoria Hospital, Montreal, 1907–08; Assistant in Pathology and Bacteriology, R. V. H., 1908–09; Voluntary Research Student in Bacteriology, Johns Hopkins Hospital, 1909–10; Voluntary Research Student, Institute of Hygiene, Breslau, 1910; Instructor in Bacteriology, University of Pittsburgh, 1911–12, Assistant Professor, 1912–16, Associate Professor, 1916–17, Professor, 1918–20; Lecturer in Hygiene, 1912–20; Assistant in Bacteriology, Robert Walton Goelet Research Laboratories, Ris Orangis in Paris, 1916–17. At Stanford since 1920.

†Hoover, Theodore Jesse, (123) PA 997
Professor of Mining and Metallurgy, 450 Melville

A.B., Stanford, 1901. Assayer, Superintendent, Manager, Consulting Engineer, Managing Director, Director, and President of many mining companies in America, Europe, Asia, Africa, and Australia, 1901–19. At Stanford since 1919.

†Hoskins, Leander Miller, (123) PA 75
Professor of Applied Mathematics, 1240 Waverley-p

B.C.E., and B. S., Wisconsin, 1883, M.S., 1885, C.E., 1887. Instructor in Engineering, University of Wisconsin, 1885–89, Assistant Professor of Mechanics, 1889–91, Professor of Theoretical and Applied Mechanics, 1891–92. At Stanford since 1892.

†Hulme, Edward Maslin, (124) PA 399M
Associate Professor of History, 638 Channing

A.B., Stanford, 1897; A.M., Cornell, 1902. University Scholar, Harvard University, 1900–01; Cornell Traveling Scholar at College de Sorbonne, 1902; Student in Europe, 1919–20; Instructor in Literature and History, High School, Portland (Ore.), 1897–1900; Assistant Professor of History, University of Idaho, 1902–05, Associate Professor, 1905-06, Professor, 1906–21, Dean of College of Letters and Science, 1917–21; Acting Professor of European History, Stanford University, Winter Quarter, 1918; Professor of European History, University of California, Summer Session, 1918; Professor of European History, University of Chicago, 1919. At Stanford snice 1921.

Hunsberger, Harvey S., (3) Pacific 3261
Clinical Instructor in Medicine, 431 Spruce, SF-sf

A.B., Olivet, 1911; M.D., Rush Medical School, 1918. Interne, Southern Pacific Hospital, 1918–19; Resident, Mt. Zion Hospital, 1919–20; Lieut., U. S. N. R. F., since 1923. At Stanford since 1923.

†Hunt, Ernest Paul, (123) PA 863M
Instructor in Physical Education, 465 Hamilton

A.B., Indiana University, 1913. Assistant in Physical Education, Indiana University, 1910–13; Director of Physical Education, Linton, Ind., 1913–14, Monte Vista, Colo., 1914–16; Supervisor of Physical Education, Waco (Tex.) Public Schools, 1916–18, Berkeley High School, 1918–21. At Stanford since 1922.

†Hyde, James Macdonald, (123) PA 768W
Professor of Metallurgy, 260 Churchill

A.B., Stanford, 1901. Curator, California State Mining Bureau, 1901–02; Assistant Professor of Mining and Metallurgy, University of Oregon, 1903–06; Metallurgist, Guanajuato Consolidated Mining and Milling Co., Guanajuato, Mexico, 1906; Superintendent, Manhattan Ore Reduction and Refining Company, 1907; Field Agent, Mexican Syndicate, 1910; Consulting Engineer and Independent Operator, 1907–19. At Stanford since 1919.

†Ichihashi, Yamato, (1234) PA 1477W
Assistant Professor of Japanese History and Government, 7 Salvatierra

A.B., Stanford, 1907, A.M., 1908; Ph.D., Harvard, 1914. Assistant in Economics, Stanford University, 1908–10; Special Agent for U. S. Immigration Commission, 1908–10; Graduate Student, Harvard University, 1910–12, Henry Bromfield Roger Memorial Fellow in Sociology, 1911–12. At Stanford 1908–10, and since 1913.

†Inman, Thomas George, (123) Pacific 7036
Assistant Clinical Professor of Medicine (Neurology), 4547 California, SF-sf

Ph.G., California College of Pharmacy, 1892; M.D., Cooper Medical College, 1894. Assistant Demonstrator of Anatomy, Cooper Medical College, 1895–1900.

Instructor in Applied Anatomy, 1900–11; Assistant Surgeon, St. Luke's Hospital, San Francisco, 1906–13, Visiting Neurologist, since 1915; Neurologist to Navy Base Hospital No. 2, 1917, 1918. At Stanford since 1915.

†JACOBS, S. NICHOLAS, (123) Prospect 4885
Assistant Lecturer in Surgery (S. F. Hospital), 209 Post, SF-sf

B.S., California, 1904, M.D., 1908. Resident Physician, Trinity Hospital, 1908–10; Assistant Surgeon, San Francisco Polyclinic, 1917–18; Surgical Chief, San Francisco Polyclinic, 1920; Assistant Visiting Surgeon, San Francisco Hospital, 1917–18, Visiting Surgeon, 1920. At Stanford since 1919.

†JOHNSTON, OLIVER MARTIN, (124) PA 1040R
Professor of Romanic Languages, 4 Alvarado

A.B., Mississippi College, 1890, A.M., 1892; Ph.D., Johns Hopkins, 1896. Principal, Preparatory Department, Mississippi College, 1890–91, Professor of English, 1891–93; Fellow in Johns Hopkins University, 1895–96; Lecturer in French Philology, Bryn Mawr College, 1896–97; Secretary, Pacific Coast Philological Association, 1909–13, President, 1917; Professor of French, University of California, Summer Session, 1919. At Stanford since 1897.

†JONES, ELIOT, (123) PA 1031W
Professor of Economics, 31 Salvatierra

A.B., Vanderbilt, 1906; A.M., Harvard, 1908, Ph.D., 1913. Instructor in Economics, Harvard University, 1912–13, University of Pennsylvania, 1913–14; Associate Professor of Economics, Iowa State University, 1914–16; Professor of Economics, University of Texas, 1916–17; Federal Trade Commission, 1917; War Industries Board, 1918; Lecturer in Economics, University of California, Summer Session, 1920, 1921. At Stanford since 1917.

JONES, JAMES WALTER, (34) West 6193
Clinical Instructor in Surgery,

A.B., Stanford, 1913, M.D., 1921. Resident in Surgery, Lane Hospital, 1922–23. At Stanford since 1923.

KATZ, LOUISE WALDMAN, (1234) PA 1025
Cataloguer, Hoover War Library, 1 Salvatierra

B.S., Cornell, 1900. Graduate work in History, Cornell University, 1900–01; Student, New York State Library School, Albany, N. Y., 1901–03; Cataloguer, University of California, 1903–11; Special Cataloguer, University of Illinois, 1913–14; Catalog Reviser, University of Minnesota, 1914–16; Cataloguer, Lane Medical Library, 1917–20; Catalog Reviser and Classifier, University of Minnesota, 1920–21. At Stanford, 1916–17, and since 1921.

KEEFER, CHAUNCEY TENNENT, (1234) PA 970
University Engineer, Stanford Union

A.B., Stanford, 1914.

†KELLEY, TRUMAN LEE, (234)
Professor of Education, 222 Union

A.M., Illinois, 1911; Ph.D., Columbia, 1914. Consulting Psychologist, Culver Military Academy, 1913–14; Adjutant Professor of Educational Psychology, University of Texas, 1914–17; Assistant Professor of Education, Teachers College, Columbia University, 1917–21; engaged in Psychological and Statistical Work for Surgeon General's Office, Adjutant General's Office, and for Committee on Education and Special Training, 1917–18; Chief Statistician, Elementary School Intelligence Examination Board of National Research Council, Summer, 1918. At Stanford since 1921.

†KELLY, THOMAS HENSHAW, (1234) Fillmore 5518
Clinical Instructor in Medicine, 2936 Divisadero, SF-sf

M.D., University of Cincinnati, 1914. Interne, Cincinnati General Hospital, 1914–15; Instructor in Medicine, University of Cincinnati, 1915–19; Medical

Director, St. Francis Hospital, San Francisco, 1920; First Lieutenant, Captain, and Major, M. C., U. S. A., 1917–19. At Stanford since 1921.

†KEMP, WILLIAM WEBB, (4) SJ 237
Acting Professor of Education (Summer Quarter), 435 S. 15th, San Jose-sj

A.B., Stanford, 1898; Ph.D., Columbia, 1912. Instructor, Hoitt's Preparatory School, Menlo Park, 1898–1903; Principal, Longfellow School, Alameda, 1903–04, Mastick School, 1905–06; Instructor in Education, Stanford University, 1904–05; Director of Education, State Normal School, San Diego, 1906–10; Graduate Scholar, Teachers College, Columbia University, 1910–11, Traveling Fellow for Study in London Archives, Summer 1911; Fellow, Teachers College, Columbia University, 1911–12; Professor of Education, University of Montana, 1912–15; Professor of School Administration, University of California, 1915–20; President, State Teachers College, San Jose, 1920–23; Dean of School of Education, University of California, since 1923.

KENDALL, LOIS M., (123) PA 1355M
Instructor in Physical Education, 912 Waverley

A.B., Wellesley, 1913. Certificate, Hygiene Department, Wellesley College, 1916; Instructor in Physical Education, Emma Willard School, Troy, N. Y., 1916–17; Director of Physical Education, Russell Sage College, Troy, N. Y., 1917–20. At Stanford since 1920.

†KENDALL, JAMES, (3)
Acting Professor of Chemistry (Spring Quarter), Kingscote

B.Sc. and M.A., Edinburgh, 1910, D.Sc., 1915. Associate Professor of Chemistry, Columbia University.

†KENNEDY, ARTHUR GARFIELD, (1234) PA 474R
Assistant Professor of English Philology, 1527 Waverley-p

A.B., Doane College, 1902; A.M., Nebraska, 1905; Ph.D., Stanford, 1914. Teacher, Chadron (Neb.) Academy, 1902–04, Norfolk (Neb.) H. S., 1905–08; Instructor in German and English, Spearfish (S. Dak.) State Normal School, 1908–12. At Stanford since 1914.

†KENNEY, WILLIAM, (123) Sunset 1310
Clinical Instructor in Medicine, 1379 6th ave., SF-sf

M.D., California, 1905. Resident Physician, St. Luke's Branch Hospital, 1906–08; Resident Physician, Relief House, 1908–14. At Stanford, 1914–16, 1917–18, and since 1919.

†KERR, ANDREW, (1234) PA 753R
Coach in Football, 416 Webster-p

Ph.B., Dickinson, 1900. Instructor in Coaching, University of Pittsburgh, 1914–22. At Stanford since 1922.

†KINDY, WARD B., (123) PA 1384W
Instructor in Electrical Engineering, 566 Everett-p

B.E.E., Ohio State, 1916. Electrical Inspector, U. S. Army Signal Corps, 1916–17; Aerial Gunnery Instructor, U. S. Naval Air Station, Key West, 1918; Instructor in Electrical Engineering, Iowa State College, 1920–21. At Stanford since 1921.

KINSLOW, FRANK ALOYSIUS, (123) Prospect 1664
Clinical Instructor in Medicine, 2400 Van Ness, SF-sf

M.D., Cooper Medical College, 1906. Interne, St. Joseph's Hospital, 1906–07; First Lieutenant, M. C., U. S. A., 1918–19. At Stanford since 1920.

†Kirkwood, Marion Rice, (1234) PA 436M
Professor of Law, and Acting Dean of the Law School, 1325 Bryant

A.B., Stanford, 1909, J.D., 1911. Student, Harvard Law School, 1909–10; Assistant Professor of Law, University of Oklahoma, 1911–12. At Stanford since 1912.

Knappen, Russell Stafford, (4) PA 735J
Acting Assistant Professor of Geology (Summer Quarter), 745 Cowper

B.S., Ohio Wesleyan, 1913; A.M., Wisconsin, 1915. Assistant in Geology, University of Wisconsin, 1914–15, Columbia University, 1915–17; U. S. Army, 1917–19; Geologist, Second Army, A. E. F., 1918; Instructor in Geology, University of Chicago, 1919–20; Geologist, Illinois Geological Survey Division, 1920–21; Assistant Professor of Geology, University of Kansas, since 1921; Geologist, U. S. Geological Survey, since 1921.

†Kroll, Frederick Walter, (123)
Clinical Instructor in Medicine, 1238 Washington, SF-sf

M.D., Cooper Medical College, 1912. Captain, M. R. C., U. S. A., 1916–18. At Stanford, 1913–14, and since 1920.

Landis, Maude, (123) West 6193
Superintendent of Nurses, and Professor of Nursing, Lane Hospital, SF-sf

A.B., Kansas, 1917; Graduate, Scarritt Hospital Training School, 1900. Graduate Study, Presbyterian Hospital, Chicago, 1905; Graduate Study, Department of Nursing and Public Health, Columbia University, 1917; Superintendent of Hospitals and Training Schools, 1901–17; Member Missouri State Board of Examination and Registration of Nurses, 1909–14; Educational Director, Lakeside Hospital Training School, Cleveland, O., 1917–18; Director Connecticut Training School for Nurses, in affiliation with Yale University Medical School, 1918–21. At Stanford since 1921.

†Langnecker, Harry Leslie, (1234) PA 854
Assistant Clinical Professor of Surgery (Orthopedics), 320 Embarcadero-p

A.B., Stanford, 1901; M.D., Johns Hopkins, 1906. Gynecological House Officer, Johns Hopkins Hospital, 1906–08; Orthopedic House Officer, Massachusetts General Hospital, 1908, Assistant in Orthopedic Surgery, Out-Patient Department, 1909–11; Assistant Resident Physician, 1911–13, Assistant to Orthopedic Surgeon-in-Chief, 1913–15; Lieutenant, M. C., U. S. N. R. F., 1917–19. At Stanford since 1915.

Kingston, John Joseph, (23) Bayview 5670
Clinical Instructor in Medicine (Pediatrics), 804 Lake, SF-sf

M.D., California, 1921. Interne, University Hospital, 1920–21; Assistant in Pediatrics, University Hospital, 1921–22. At Stanford since 1923.

†Le Rossignol, James Edward, (4)
Acting Professor of Economics (Summer Quarter), Stanford Union

A.B., McGill, 1888; Ph.D., Leipzig, 1892; LL.D., Denver, 1911, McGill, 1921. Fellow in Psychology, Clark University, 1892; Professor, Psychology and Ethics, Ohio University, 1892–94; Professor of Economics, University of Denver, 1894–1911; Professor of Economics, University of Nebraska, since 1911, Director of School of Commerce, 1913–19, Dean of College of Business Administration, since 1919; Special Lecturer in Economics, McGill University, 1900; Lecturer in Political Science, University of Wisconsin, Summer Session, 1903; Acting Professor of Political Economy, University of Nebraska, 1908–09.

LAYMAN, MARY H., (123) Fillmore 1953
Assistant Clinical Professor of Medicine (Pediatrics),
2582 Filbert, SF-sf

M.D., Ludwig-Maximilian University, Munich, 1913. Assistant, Medical and Pediatric Clinic, Munich, 1915–16; Assistant Visiting Physician, Pediatrics, San Francisco Hospital, 1917–19. At Stanford since 1917.

†LEE, RUSSELL VON ARSDALE, (1234) Franklin 6471
Clinical Instructor in Therapeutics, 177 Post, SF-sf

B.S., California, 1917; M.D., Stanford, 1920. At Stanford since 1922.

†LEMOS, PEDRO J., (1234) PA 396J
Director of the Museum and Art Gallery, 460 Churchill

Assistant Professor of Etching and Lettering, University of California, 1910–11, Professor of Design and Applied Arts, 1911–12; Director of San Francisco Institute of Art, 1912–17; Exhibitor, Pennsylvania Academy of Fine Arts, Carnegie Institute, Pittsburgh, Brooklyn Museum of Fine Arts, Chicago Art Institute, New York Galleries, Panama-Pacific International Exposition; editor of the School Arts Magazine. At Stanford since 1917.

LENOX, LIONEL REMOND, (123)
Professor of Analytical Chemistry, Palo Alto

Ph.B., Columbia, 1888. Assistant Chemist, Bethlehem Steel Co., 1887; Instructor in Chemistry, Lehigh University, 1888–91; Chemist, Ordnance Department, U. S. N., Washington (D. C.), 1891–92; Chief Chemist, Conkling Iron Co., 1888–92; Chemist, Allan Cement Co., 1890–91. At Stanford since 1892.

†LESLEY, EVERETT PARKER, (123) PA 253
Professor of Mechanical Engineering, 18 Alvarado

A.B., Stanford, 1897; M.M.E., Cornell, 1905. Apprentice and Foreman in Union Iron Works, San Francisco, 1897–1903; Assistant Inspector to Naval Constructor, 1903–04; Draftsman at U. S. Experimental Model Basin, Washington (D. C.), 1905–07. At Stanford since 1907.

†LIGGETT, JAMES BENNETT, (123) PA 824J
Teaching Specialist in Foundry Practice, 760 Waverley-p

Apprentice and Foundry Molder, Falls Rivet and Machine Co., Cuyahoga Falls (Ohio), 1883–88, Webster Camp & Lane, Akron (Ohio), 1888–93, Bowler & Co., Cleveland (Ohio), 1893–98, Cleveland Steel Casting Co., 1898–99; Foreman, Born Steel Range Co., Cleveland (Ohio), 1899–1902, Westinghouse Electric Co., Cleveland (Ohio), 1902. At Stanford since 1902.

LOTHROP, MARGARET MULFORD, (124) PA 1028W
Instructor in Economics, 6 Cabrillo

A.B., Smith, 1905; A.M., Stanford, 1915. At Stanford since 1915.

†LOWRY, CHARLES DOAK, JR., (234) PA 1281W
Instructor in Organic Chemistry, 352 Hanover, Mayfield

B.S., Northwestern, 1917, M.S., 1920; A.M., Harvard, 1921. At Stanford since 1921.

LUTTRELL, PETER HARRISON, (123) West 7619
Clinical Instructor in Medicine, 2617 Sacramento, SF-sf

M.D., Cooper Medical College, 1908. Assistant in Medical Clinic, Cooper Medical College, 1908–10, Instructor in Physical Diagnosis, 1910–11; Assistant in Medical Wards, Lane Hospital, 1911–14. At Stanford, 1916–17, 1918–20, and since 1921.

LUTZ, RALPH HASWELL, (123) PA 970
Associate Professor of History, Stanford Union

A.B., Stanford, 1906; LL.B., Washington, 1907; Ph.D., Heidelberg, 1910. Student, Universities of California (summer, 1906), Bonn and Heidelberg (1907–10), Berlin (summer, 1913); Instructor in History, University of Washington, 1911–16, Assistant Professor, 1916–20; Lecturer in European History, Stanford University, 1915–16. At Stanford, 1915–16, and since 1920.

MCCRACKEN, MARY ISABEL, (234) PA 1127W
Assistant Professor of Entomology, 1 Arguello

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1908. Student, Paris and London, 1912–13. At Stanford since 1904.

†MCDOWELL, JOHN EZRA, (1234) LA 56
Academic Secretary, and Alumni Secretary, Los Altos

A.B., Stanford, 1900. At Stanford since 1900.

†MCFARLAND, FRANK MACE, (1234) PA 480
Professor of Histology, 2 Cabrillo

Ph.B., De Pauw, 1889; A.M., Stanford, 1893; Ph.D., Würzburg, 1896. Professor of Biology and Geology, Olivet College, 1889–92; Student, Würzburg, Zürich, and Naples, 1894–96. At Stanford since 1892.

†MCKEE, ALBERT BROWN, (1234) Redwood 1704F4
Clinical Professor of Surgery (Ophthalmology). Woodside-RFD, rc

Ph.B., University of the Pacific, 1883, Ph.M., 1886; M.D., Cooper Medical College, 1886. Instructor and Acting Head of the Eye, Ear, Nose, and Throat Division, University of California Medical Department, 1902–08; Associate Professor of Ophthalmology, Cooper Medical College, 1908–12. At Stanford since 1912.

†MCLAUGHLIN, ROY PARMELEE, (123) Douglas 5451
Lecturer in Oil Technology and Petroleum Engineering, 315 Montgomery, SF-sf

A.B., Stanford, 1902. Engineer, 1915. Assistant Engineer, North Star Mines Co., Grass Valley, Calif., 1904; Engineer, Consolidated Mining Co., Bodie, 1905–06, Mono Lake Railway & Lumber Co., 1907; Geologist, Associated Oil Co., San Francisco, 1908–15; Chief of Petroleum Department, California State Mining Bureau, 1913–15; California State Oil and Gas Supervisor 1915–20; Consulting Petroleum Engineer and Geologist, 1921–22. At Stanford since 1922.

†MCMURPHY, JAMES IRA WILSON, (123)
Assistant Professor of Botany. 411 Yale, College Terrace

A.B., Stanford, 1908, A.M., 1909. At Stanford since 1908.

†MCNAUGHT, HARVARD YOUNG, (1234) Bayview 584
Associate Clinical Professor of Surgery (Otology, Rhinology, Laryngology). 755 14th ave., SF-sf

M.D.C.M., Trinity University, 1897. Fellow by Examination, Trinity Medical College, 1897; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1911–12. At Stanford since 1913.

†MALONEY, HENRY WILFRED, (1234) PA 696
Associate Director of Encina Gymnasium. 176 Waverley

Military Gymnastic School, Dublin, Ireland, 1899; Physical Instructor, British Army, 1899–1900; British War Service, South Africa, 1901–02; Gymnastic School, Pasadena, 1904–08; Captain and Athletic Officer, A. E. F., 1917–18; Track Coach and Trainer, U. S. Track Team, Inter-Allied Games, Paris, France, 1919; Trainer and Rugby Commissioner, Rugby Teams, Olympic Games, Antwerp,

Belgium, 1920; President, California Rugby Union, since 1920; Western Representative, National (Soccer) Football Association, 1922. At Stanford since 1908.

†MANNING, WILLIAM ALBERT, (1234) PA 689R
Professor of Applied Mathematics, 604 Tennyson-p

A.B., Willamette University, 1900; A.M., Stanford, 1902, Ph.D., 1904. Student, University of Paris, 1904–05; Acting Assistant Professor of Mathematics, University of Illinois, 1909–10. At Stanford since 1900.

†MANWARING, WILFRED HAMILTON, (12) PA 1509
Professor of Bacteriology and Experimental Pathology, 364 Kingsley-p

B.S., Michigan, 1895; M.D., Johns Hopkins, 1904. Fellow and Assistant in Pathology, University of Chicago, 1904–05; Associate Professor of Pathology, Indiana University, 1905–07; Traveling Fellow, Rockefeller Institute, 1907–08, v. Wassermann's Laboratory, Berlin, 1907–08, Ehrlich's Laboratory, Frankfort-on-Main, 1908–09, Lister Institute of Preventive Medicine, London, 1909–10; Assistant in Pathology, Rockefeller Institute, 1910–13; Lecturer in Functional Pathology, Washington University Medical School, 1920–21. At Stanford since 1913.

†MARTIN, ERNEST GALE, (123) PA 1398R
Professor of Physiology, 1525 Waverely

Ph.B., Hamline, 1897; Ph.D., Johns Hopkins, 1904. Assistant in Biology, Hamline University, 1896–97; Fellow in Physiology, Johns Hopkins University, 1902–03, Assistant, 1903–04; Instructor in Anatomy and Physiology, Purdue University, 1904–06; Instructor in Physiology, Harvard University, 1906–10, Assistant Professor, 1910–16; Instructor in Physiology, Simmons College, 1907–08; Lecturer in Physiology, Sargent School for Physical Education, 1906–14; Assistant Professor of Physiology, Radcliffe College, 1914–16. At Stanford since 1916.

†MARTIN, ERNEST WHITNEY (1234) PA 132J
Associate Professor of Classical Literature, 525 Lincoln

A.B., Chicago, 1900; A.M., Stanford, 1902, Ph.D., 1910. Instructor in Latin and Greek, Private School, Clarinda (Ia.), 1895–96, Principal of High School, 1896–98; Student, University of Berlin and American School of Classical Studies, Rome, 1900–01; Acting Professor of Latin and Greek, University of Nevada, 1908–09, Professor of Greek, 1909–10. At Stanford since 1901.

†MARTIN, PERCY ALVIN, (134) PA 1081R
Associate Professor of European History, 29 Salvatierra

A.B., Stanford, 1902, A.M., 1903; A.M., Harvard, 1907, Ph.D., 1912. Student, University of Paris, 1903–04, Universiteis of Berlin and Leipzig, 1907–08; Fellow, Harvard University, 1908; Professor of History and French, Whittier College, 1904–05; Lecturer in Latin-American History, Harvard University, 1915; Lecturer in South American History and Institutions, University of Washington, Summer Session, 1916. At Stanford since 1908.

†MARX, CHARLES DAVID, (123) PA 255
Professor of Civil Engineering, 357 Kingsley

B.C.E., Cornell, 1878; C.E., Karlsruhe Polytechnicum, 1881; LL.D., California, 1918. Instructor in Civil Engineering, Karlsruhe Polytechnicum, 1880–81; U. S. Assistant Engineer, Missouri and Mississippi River Improvement, 1882–84; Assistant Professor of Civil Engineering, Cornell University, 1884–90; Professor of Civil Engineering, University of Wisconsin, 1890–91. At Stanford since 1891.

†MARX, GUIDO HUGO, (123) PA 715
Professor of Machine Design, 356 Lincoln

M.E., Cornell, 1893. With Gleason Tool Co., Rochester (N. Y.), 1893–94; with Bement, Miles & Co., Philadelphia, 1894–95. At Stanford since 1895.

MATTHEWS, JAMES T., (4)
Acting Assistant Professor of Mathematics (Summer Quarter),
Professor of Mathematics, Willamette University, since 1903.

†MECHEM, FLOYD RUSSELL, (4) PA 1141J
Acting Professor of Law (Summer Quarter), 677 Melville-p

A.M. (hon.), Michigan, 1894, LL.D., 1912. In Practice, Battle Creek (Mich.), 1879–97, Detroit (Mich.), 1887–93. Professor and Dean, Detroit College of Law, 1891–92; Tappan Professor of Law, University of Michigan, 1892–1903; Professor of Law, University of Chicago, since 1903; Acting Professor of Law, Columbia University, Summer Session, 1919, 1920; Member of Michigan State Board of Bar Examiners, 1895–1903; President of the University of Chicago Settlement, 1906–19.

†MEARS, ELIOT GRINNELL, (23) PA 1500
Acting Professor of Economics, 23 Salvatierra

A.B., Harvard, 1910, M.B.A., 1912. Secretary and Instructor, Harvard Graduate School of Business Administration, 1912–16; Chief, Foreign Service Division, and later American Trade Commissioner in the Near East, United States Bureau of Foreign and Domestic Commerce, since 1916; Commercial Attaché to American High Commission in Turkey, 1919–20; Economist, Harbord Military Mission to Armenia and Transcaucasia, 1919.

MEHRTENS, HENRY GEORGE, (1234) West 6193
Assistant Professor of Medicine (Neurology),
Stanford Hospital, SF-sf

B.S., California, 1911; M.D., Stanford, 1913. Senior House Officer, Lane Hospital, 1914–15, House Physician, since 1915. At Stanford since 1915.

MENTZER, MARY JONES (MRS.), (123) Prospect 4530
Clinical Instructor in Medicine, Colonial Hotel, SF-sf

M.D., Woman's Medical College, Pennsylvania, 1905. Resident Physician, Sheltering Arms, Philadelphia, 1906–08, San Francisco Polyclinic, 1916–18, 1919–20; on Active Staff, Arequipa Sanitarium, 1916. At Stanford sicne 1921.

MERRILL, MAUDE AMANDA, (1234). PA 515W
Instructor in Psychology, 30 Alvarado

A.B., Oberlin, 1911; A.M., Stanford, 1920. At Stanford since 1920.

†MEYER, ARTHUR WILLIAM, (123) PA 1225
Professor of Anatomy, 121 Waverley-p

B.S., Wisconsin, 1898; M.D., Johns Hopkins, 1905. Assistant and Instructor in Anatomy, Johns Hopkins University, 1905–07; Assistant Professor of Anatomy, University of Minnesota, 1907–08; Professor of Anatomy, Northwestern University, 1908–09; Research Associate, Carnegie Institution, 1917–18. At Stanford since 1909.

†MILES, WALTER RICHARD, (234)
Professor of Experimental Psychology, 10 Cabrillo

A.B., Earlham, 1908; A.M., Iowa, 1910, Ph.D., 1913. Instructor in Psychology and Education, Penn College, 1908–10; Scholar in Education, University of Iowa, 1909–10, Fellow and Assistant in Psychology, 1910–12; Associate Professor of Psychology, Wesleyan University, 1913–14; Psychologist at Nutrition Laboratory of Carnegie Institution of Washington, Boston, Mass., 1914–22. At Stanford since 1923.

MILLER, IRVING ELGAR, (4) PA 724M
Acting Associate Professor of Education (Summer Quarter), Sandhill Rd.

A.B., Rochester, 1894; A.M., Chicago, 1903, Ph.D., 1904. Teacher of Mathematics, Colby Academy, New London (N. H.), 1895–99; Fellow in Philosophy, University of Chicago, 1900–01, 1903–04; Instructor in Psychology, State Nor-

mal School, Milwaukee, 1904–09, Supervisor of Practice Teaching, 1908–09; Head of Department of Education, State Normal School, Greeley (Colo.), 1909–14; Assistant Professor of Philosophy, University of Rochester, 1914–16; Literary Work and Extension Teaching, Teachers College, Columbia University, 1916–17; Head of Department of Education and Psychology, State Normal School, Bellingham (Wn.), since 1917; Lecturer in Education, Summer Sessions, University of Chicago, 1907, Cornell University, 1915, Teachers College, Columbia, 1916.

MIRRIELEES, EDITH RONALD, (123) PA 964M
Assistant Professor of English, 19 Salvatierra
A.B., Stanford, 1907. At Stanford since 1909.

†MITCHELL, JOHN PEARCE, (123) PA 722
Professor of Chemistry, 235 Embarcadero
A.B., Stanford, 1903, A.M., 1904, Ph.D., 1909. Student, University of Leipzig, 1904–05 At Stanford, 1903–04, and since 1905.

†MOORE, CHESTER BIVEN, (123) Fillmore 922
Clinical Instructor in Obstetrics and Gynecology, 3469 Jackson, SF-sf
B.S., California, 1906, M.D., 1910. Interne, University of California Hospital, 1910–11; House Officer, Children's Hospital, Boston, 1911–12. At Stanford since 1913.

†MORENO, HALCOTT CADWALADER, (123) PA 526J
Professor of Applied Mathematics, 28 Alvarado
A.B., University of Georgia, 1893, A.M., 1894, B.L., 1896; Ph.D., Clark, 1900. Tutor in Mathematics, University of Georgia, 1893–97; Scholar and Fellow in Mathematics, Clark University, 1897–1900, Assistant in Mathematics, 1900–01. At Stanford since 1901.

MORGAN, THEODORE HARDING, (12) PA 970
Instructor in Electrical Engineering, 12 Union
A.B., Stanford, 1920.

†MORSE, HARRY WHEELER, (123) PA 336M
Lecturer in Hydrometallurgy, 504 Hamilton-p
A.B., Stanford, 1897; Ph.D., Leipzig, 1902. Instructor and Assistant Professor of Physics, Harvard University, 1902–12; Lecturer in Chemistry, University of California, 1912–13; Consulting Chemist and Metallurgist since 1913.

†MOSER, CHARLES, (1234) PA 592J
Assistant Professor of Civil Engineering, 651 Homer-p
C.E., Ohio Northern University, 1902; A.B., Stanford, 1908. At Stanford since 1908.

MOSHER, CLELIA DUEL, (1234) PA 32
Assistant Professor of Personal Hygiene, and Medical Adviser of Women, 179 Lincoln-p
A.B., Stanford, 1893, A.M., 1894; M.D., Johns Hopkins, 1900. Assistant in Hygiene and Physical Training, Stanford University, 1893–94, Instructor, 1894–96; Externe in the Johns Hopkins Hospital Dispensary, and Gynecological Assistant in Dr. Howard A. Kelly's Sanatorium, Baltimore (Md.), 1900–01; Physician, Palo Alto, 1901–10. At Stanford, 1893–96, and since 1910.

[†MURRAY, AUGUSTUS TABER, PA 1025
Professor of Classical Literature, 1 Salvatierra
A.B., Haverford, 1885; Ph.D., Johns Hopkins, 1890. Fellow in Johns Hopkins University, 1887–88; Professor of Greek, Earlham College, 1888–90; Student, Universities of Leipzig and Berlin, 1890–91; Professor of Greek, Colorado College, 1891–92. At Stanford since 1892.]

MURRAY, MARGARET, (1234) PA 1219J
Secretary to the Comptroller, 1011 Fulton

†NEWELL, ROBERT REID, (123) Bayview 5232
Instructor in Medicine (Radiology), 2344 Anza, SF-sf

M.D., California, 1916. Assistant in Medicine, University of California, 1917. At Stanford since 1920.

†O'CONNOR, RODERIC, (123) Prospect 818
Clinical Instructor in Surgery (Ophthalmology), 909 Hyde, SF-sf

M.D., Pennsylvania, 1900. Interne, St. Mary's Hospital, Philadelphia; First Lieutenant, Medical Corps, U. S. A., 1901; Honor Graduate, Army Medical School, 1902; Major, Medical Corps, U. S. A., 1910–14. At Stanford since 1918.

[OLIVER, HARRY REEVES,
Assistant Clinical Professor of Medicine (Serology),
Laboratory, Fort Bliss, Tex.

M.D., Cooper Medical College, 1898. Assistant in Pathology, Cooper Medical College, 1898–1904, Instructor, 1904–06, Assistant Professor, 1906–11, Associate Professor of Clinical Pathology, 1911–12, Serologist, 1912. At Stanford since 1909.]

†OLIVER, JEAN REDMAN, (123) Franklin 3191
Associate Professor of Pathology, 1246 Lombard, SF-sf

A.B., Stanford, 1911, M.D., 1914. Assistant in Pathology and Bacteriology, Rockefeller Institute for Medical Research, 1916–18, Associate, 1919; First Lieutenant and Major, M. C., U. S. A., Camp Meade (Md.); Group Laboratory Officer, Justice Hospital Group, Toul, France; Detailed on Medical History of the War, Central Medical Department Laboratory, Dijon, France, and Surgeon General's Office, Washington (D. C.), 1917–19. At Stanford, 1914–16, and since 1919.

†O'NEILL, ARTHUR ALOYSIUS, (123) Park 6916
Clinical Instructor in Medicine (Pediatrics), 100 Dolores, SF-sf

M.D., Cooper Medical College, 1891. Assistant Surgeon, Cooper Medical College Clinic, 1893; Assistant in Diseases of the Skin, San Francisco Polyclinic, since 1902; in charge of Isolation and Plague Hospital, 1907–10, of Isolation Hospital, 1912. At Stanford since 1913.

OPHÜLS, LOUISE, (1234) Fillmore 5747
Medical Librarian, Lane Medical Library, 2186 California, SF-sf
At Stanford since 1910.

†OPHÜLS, WILLIAM, (234) Fillmore 5747
Dean of the Medical School, and Professor of Pathology,
2186 California, SF-sf

M.D., University of Göttingen, 1895. Assistant at the Pathologic Institute at Göttingen, 1896–97; Professor of Pathology and Bacteriology, University of Missouri, 1897–98; Professor of Pathology and Bacteriology, Cooper Medical College, 1898–1912; Pathologist, Lane Hospital, since 1898; Instructor in Pathology, Training School for Military Officers, U. S. A., 1918. At Stanford since 1909.

†OWENS, WILLIAM BROWNLEE, (1234) PA 1170W
Associate Professor of Law, 19 Alvarado
LL.B., Stanford, 1915. At Stanford, 1915–16, and since 1920.

†PALMATEER, THERON J., (123)
Teaching Specialist in Machine Shop Practice. 1028 Cowper-p

Apprentice with Sibley & Ware, South Bend (Ind.); Journeyman Machinist, 1896–1905, with R. Hoe & Co., New York, Columbus Machine Works, Columbus (Ohio), Elems Engineering Works, Chicago, Western Gas Engine Works, Mishawaka (Ind.), Webster Iron Works, Bakersfield (Cal.), R. S. Hunkins, San Jose (Cal.). At Stanford since 1904.

PALMER, CAROLINE BELL, (123) West 6523
Associate Clinical Professor of Surgery (Anesthetics).
2401 Sacramento, SF-sf

M.D., Cooper Medical College, 1906. Chief Anesthetist, Lane Hospital, since 1909. At Stanford since 1917.

†PARISH, SAMUEL BONSALL, (123)
Lecturer on California Botany. 1024 Scenic ave., Berkeley-b

†PARK, CHARLES V., (1234) PA 1188W
Assistant Librarian, 1080 Emerson-p

A.B., Stanford, 1909. Certificate, New York Public Library, Library School, 1915. At Stanford since 1909.

†PARKS, GEORGE SUTTON, (123) PA 289W
Instructor in Chemistry, 176 Bryant-p

B.S., Washington, 1915, M.S., 1916; Ph.D., California, 1919. Instructor in Chemistry, California Institute of Technology, 1919–20. At Stanford since 1920.

†PEIRCE, GEORGE JAMES, (1234) PA 1367J
Professor of Botany and Plant Physiology. 281 Embarcadero

S.B., Harvard, 1890; A.M. and Ph.D., Leipzig, 1894. Assistant in Botany, Harvard University and Radcliffe College, 1890–92; Parker Fellow in Harvard University, studying in Bonn, Leipzig, and Munich, 1892–94; Assistant Professor of Botany, Indiana University, 1895–97; Acting Professor of Botany, University of Wisconsin, second semester, 1910–11. At Stanford since 1897.

PERRY, ELIZABETH, (123) PA 1511
Secretary to Dr. Taylor, Food Research Institute. 27 Salvatierra

B.S., Simmons, 1914; A.M., Stanford, 1920. At Stanford since 1920.

PERRY, FRANCES, (1234) PA 511
Secretary to Dr. Alsberg, Food Research Institute. 27 Salvatierra

A.B., Radcliffe, 1911. At Stanford since 1919.

PETTIT, ALBERT VICTOR, (1234) Prospect 6833
Clinical Instructor in Obstetrics and Gynecology,
1562 Vallejo, SF-sf

A.B., Stanford, 1915, M.D., 1919. At Stanford since 1920.

†PIERSON, PHILIP HALE, (1234) Pacific 7907
Assistant Clinical Professor of Medicine (Tuberculosis),
734 12th ave., SF-sf

A.B., Yale, 1908; M.D., Harvard, 1913. House Officer, Massachusetts General Hospital, 1914–15. At Stanford since 1916.

†PRICE, GEORGE CLINTON, (123) PA 1053
Professor of Zoology, 5 Alvarado

B.S., De Pauw, 1890; Ph.D., Stanford, 1897. Student in Biology, Johns Hopkins University, 1890–92; University of Munich, 1895–96. At Stanford since 1892.

†PROCTOR, WILLIAM MARTIN, (1234) PA 1040J
Associate Professor of Education, 5 Salvatierra

A.B., Whitman, 1901; A.M., Stanford, 1916, Ph.D., 1919. Teacher of History and Civics, Cheney (Wash.) State Normal School, 1909–10; Professor of Education, Pacific University, Forest Grove, Oregon, 1911–15, Dean of Faculty, 1914–15; Instructor in Education, Harvard Summer Session, 1922. At Stanford since 1916.

PUTNAM, DOROTHY, (1234) PA 218W
Secretary, School of Education, 625 Guinda

A.B., Stanford, 1916. At Stanford since 1916.

†RAKESTRAW, NORRIS WATSON, (123) PA 1141J
Instructor in Chemistry, 677 Melville-p

A.B., Stanford, 1916, A.M., 1917, Ph.D., 1921. At Stanford since 1919.

†READ, JAY MARION, (14) West 8705
Clinical Instructor in Medicine, 1571 Fulton, SF-sf

B.S., California, 1912, M.S., 1913; M.D., Stanford, 1915. Assistant Medical Clinic, Stanford Service, San Francisco Hospital, since 1916; Captain, M. R. C., U. S. A., 1917–19.

†REED, ALFRED CUMMINGS, (123) Bayview 841
Associate Clinical Professor of Medicine. 751 14th ave., SF-sf

A.B., Pomona, 1906; M.D., Bellevue Medical College, 1910. Instructor in Pharmacology, Bellevue Medical College, 1910–11; Assistant Surgeon, U. S. Public Health Service, 1911–13; Attending Physician, Yale Hospital, Changsha, China, 1913–15; Lieutenant, M. C., U. S. N. R. F., 1917–19; Chief of Medical Service, Mare Island Naval Hospital, 1918–19; Editor California State Journal of Medicine, since 1917. At Stanford since 1916.

REED, RALPH D., (1)
Acting Assistant Professor of Geology. Evergreen Park

REIMER, MARIE, (3)
Lecturer in Chemistry (Spring Quarter). 25 Salvatierra

A.B., Vassar, 1897; Ph.D., Bryn Mawr, 1904. Student, University of Berlin, 1902–03; Associate Professor of Chemistry, Barnard College, since 1903.

†RENDTORFF, KARL GUSTAV, (123) PA 515W
Professor of German, 30 Alvarado

A.M., Stanford, 1894, Ph.D., 1896. Student, University of Giessen, 1884–85, University of Kiel, 1885–91. At Stanford since 1894.

†REYNOLDS, LLOYD ROBINSON, (1234) Fillmore 3678
Clinical Instructor in Surgery (Genito-Urinary), 2620 Laguna, SF-sf

A.B., Stanford, 1915, M.D., 1920. At Stanford since 1921.

†RIGDON, RUFUS LEE, (123) Fillmore 2285
Clinical Professor of Surgery (Genito-Urinary), 1617 Broderick, SF-sf

M.D., Cooper Medical College, 1887. Assistant and Instructor in Genito-Urinary Clinic, Cooper Medical College, 1888–98, Associate Professor of Genito-Urinary Surgery and Chief of Genito-Urinary Clinic, 1898–1908, Professor of Genito-Urinary Surgery, 1908–12. At Stanford since 1912.

RITTER, ARTHUR JOHN, (123) — San Anselmo 8
Lecturer on Mental Deficiency, — Ross-r

Graduate Teachers' College, Zürich (Switzerland), 1897; Research Assistant, Racial Studies, Johannesburg (South Africa), 1898–1901; Student, Paris, 1902–03; Instructeur des enfants arrières, Paris, 1904–05; Private Case Work with Feeble-Minded Children, 1906–11; Home School for Nervous and Backward Children, 1912; Lecturer, Department of Criminology, University of California, Summer Session, 1920. At Stanford since 1916.

†RIXFORD, EMMETT, (123) — Franklin 5100
Professor of Surgery, — 1795 California, SF-sf

B.S., California, 1887; M.D., Copoer Medical College, 1891. Adjunct Professor of Surgery, Cooper Medical College, 1893–98, Professor, 1898–1912; Visiting Surgeon, Lane Hospital, 1895, City and County Hospital, San Francisco, since 1899; Instructor in Surgery, Training School for Military Officers, U. S. A., 1918. At Stanford since 1909.

†ROBINSON, EDGAR EUGENE, (1234) — PA 1511
Associate Professor of American History, — 27 Salvatierra

A.B., Wisconsin, 1908, A.M., 1910. Assistant in History, University of Wisconsin, 1908–09, Fellow in American History, 1909–10; Assistant Professor of History, Carleton College, 1910–11; Instructor in History, University of Minnesota, Summer Session, 1912, Resident Lecturer, 1915–16; Assistant Professor of History, University of Michigan, Summer Session, 1916; Assistant Educational Director, S. A. T. C., 1918; Visiting Professor of American History, Yale University, 1919–20. At Stanford since 1911.

†ROGERS, AUSTIN FLINT, (1234) — PA 1081W
Professor of Mineralogy, — 15 Salvatierra

A.B., Kansas, 1899, A.M., 1900; Ph.D., Columbia, 1902. Assistant in Mineralogy, University of Kansas, 1898–1900; Assistant Geologist, University Geological Survey of Kansas, 1898–1900, 1903; Fellow in Mineralogy, Columbia University, 1900–02, Tutor in Mineralogy, 1902–05. At Stanford since 1905.

†ROGERS, FREDERICK JOHN, (123) — SJ 3438J
Associate Professor of Physics, — 550 S. 6th, San Jose

M.S., Cornell, 1891. Instructor in Physics, Cornell University, 1892–1900. At Stanford since 1900.

†ROSS, PERLEY ASON, (123) — PA 689J
Assistant Professor of Physics, — 1830 Cowper-p

A.B., Stanford, 1908, A.M., 1910, Ph.D., 1911. At Stanford since 1908.

†ROTH, ALMON EDWARD, (1234) — PA 900L1
Comptroller, — Santa Teresa

A.B., Stanford, 1909, J.D., 1912.

RUSSELL, FRANCES THERESA (MRS.), (34) — PA 964J
Assistant Professor of English, — 19 Salvatierra

Ph.B., Iowa, 1895; Ph.D., Columbia, 1920. Teacher in Denison (Ia.) Normal School, 1895–96; Principal, Villisca (Ia.) High School, 1896–98; Graduate Student at Radcliffe College, 1898–99; Teacher in Anamosa (Ia.) High School, 1899–1900. At Stanford since 1905.

RUSSELL, JOHN, (124)
Instructor in Analytical Chemistry, — 216 Union

B.A., University of British Columbia, 1917; M.Sc., McGill, 1918. Exhibition Scholar, McGill University, 1919. At Stanford since 1921.

†Ryan, Harris Joseph, (123) PA 1075
Professor of Electrical Engineering, 525 Embarcadero

M.E., Cornell, 1887. With Western Engineering Co., Lincoln (Neb.), 1887–88; Instructor in Physics, Cornell University, 1888–89, Assistant Professor of Electrical Engineering, 1889–92, Associate Professor, 1892–95; Professor, 1895–1905; Judge, Board of Awards, World's Fair, Chicago, 1893; U. S. Government Delegate, International Electrical Congress, St. Louis Exposition, 1904. At Stanford since 1905.

Ryfkogel, Henry Anthon Lewis, (123) Bayview 1713
Lecturer on Surgery (S. F. Hospital), 146 15th ave., SF-sf

M.D., California, 1894. Instructor in Anatomy, University of California, 1894–95, Instructor in Clinical Pathology, Medical Department, 1895–1900, Instructor in Bacteriology, 1900–06, in Surgical Pathology, 1906–07; Surgeon, San Francisco Polyclinic, and Visiting Surgeon, St. Francis Hospital, since 1904.

†Sabine, George Holland, (4) PA 1021W
Acting Professor of Philosophy (Summer Quarter), 22 Lasuen

A.B., Cornell, 1903, Ph.D., 1906. Sage Fellow in Philosophy, Cornell University, 1905–06, Assistant in Philosophy, 1906–07, Acting Assistant Professor of Logic and Metaphysics, 1910–11; Assistant Professor of Philosophy, Stanford University, 1907–13; Professor of Philosophy, University of Missouri, since 1913.

Sampson, Joseph Abraham, (123) Douglas 8440
Clinical Instructor in Medicine (Pediatrics), 291 Geary, SF-sf

B.S., California, 1910; M.D., Stanford, 1921. Interne, Lane Hospital, and House Officer, San Francisco Hospital, 1920–21. At Stanford since 1921.

Sanders, Nathaniel, (1234) PA 970
Instructor in Economics, Union

A.B., California, 1898. At Stanford since 1918.

Sanford, Laura Maud, (1234) Pacific 6188
Secretary to Dean of Medical School, 478 10th ave., SF-sf

A.B., Stanford, 1917.

Schaeffer, Rudolph, (23) Market 7441
Lecturer in Design (Graphic Art), 1567 Willard, SF-sf

Sometime Student at Royal Arts and Crafts School, Munich; Pupil of Professor Hoffman, Vienna, and of Ernest Batchelder and Ralph Johonnot, California; Assistant Professor of Design and Crafts, California School of Fine Arts.

†Schaller, Walter Frank, (123) Bayview 150
Clinical Professor of Medicine (Neurology), 909 Hyde, SF-sf

M.D., Cooper Medical College, 1902. Assistant in Pathology, Cooper Medical College, 1905–06; Assistant Surgeon, U. S. N., 1906–08; Student at Karlsruhe, Vienna, and Paris, 1909–11; P. A. Surgeon, U. S. N. R. F., June–December, 1917, and since October, 1918. At Stanford since 1911.

†Schaupp, Karl Ludwig, (1234) Pacific 3417
Clinical Instructor in Obstetrics and Gynecology, 437 Lake, SF-sf

A.B., Stanford, 1913, M.D., 1916. Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1916–17; Visiting Obstetrician, San Francisco Hospital, since 1918.

†Schultz, Edwin William, (1234) PA 1210
Associate Professor of Bacteriology, 1004 Ramona

B.S., Winona College, 1913; A.B., Michigan, 1914; M.D., Johns Hopkins, 1917. Special Student in Protozoology, School of Hygiene and Public Health, Johns Hopkins University, Autumn Quarter, 1919–20; Field Director, International Health Board, 1917; Chief of Laboratory, 33d Division, U. S. Army, and

Pathologist, Base Hospital No. 42, A. E. F., 1917–18; Chief of Laboratory, A. R. C. Military Hospital No. 9, A. E. F.; Bacteriologist A. R. C. Commission to Germany, and Chief of Bureau of Medical Research, A. R. C. Commission to Poland, 1918–19; First Lieutenant and Captain, M. C., U. S. A., and Deputy Commissioner (Major, U. S. A.), American Red Cross, 1917–19; Major, M. R. C., U. S. A. At Stanford since 1920.

SCHURZ, FRANKLIN DUNN, (123) PA 1639M
Junior Associate, Food Research Institute, Kingscote

A.B., Harvard, 1919, M.B.A., 1921. At Stanford since 1922.

SCHUSSLER, HERMANN, JR., (123) Franklin 1388
Clinical Instructor in Medicine (Pediatrics), 1800 Franklin, SF-sf

B.S., University of California, 1914; M.D., Harvard Medical School, 1918; Assistant Resident Physician, Barnes Hospital, St. Louis (Mo.), 1920. At Stanford since 1921.

†SCHWARTZ, WILLIAM LEONARD, (123) PA 239W
Instructor in Romanic Languages, 421 Harvard, Mayfield

A.B., Ohio Wesleyan, 1910; A.M., Stanford, 1920. Professor of English, Kagoshima 7th Government College, Japan, 1910–14, Nagaski Imperial College of Commerce, 1914–19; Professor of French, College of the Pacific, 1919–20. At Stanford since 1920.

†SEARS, JESSE BRUNDAGE, (124) PA 1145W
Professor of Education, 270 Parkinson-p

A.B., Stanford, 1909; Ph.D., Teachers College, Columbia, 1920. Student, University of Chicago, Summer Quarter, 1910; Research Scholar, Teachers College, Columbia University, 1910–11; Instructor in Education, University of Wisconsin, 1909–10; Assistant in Educational Sociology, Teachers College, Columbia University, Summer Session, 1911. At Stanford since 1911.

†SEAY, WELLFORD DUFFY, (123) PA 1505J
Assistant to Director of Encina Gymnasium, 17 Alvarado

A.B., Occidental, 1913. Student, University of Southern California, 1913–14; Teacher of History, Pasadena H. S., 1914–17; First Lieutenant 364th Infantry, U. S. A., 1917–19; Teacher of History and Military Commandant, Pasadena H. S., 1919–20. At Stanford since 1920.

SELLARDS, JOHN ARMSTRONG, (1234) PA 644
Instructor in Romanic Languages, 21 Salvatierra

A.B., Illinois, 1912; A.M., Stanford, 1916. At Stanford, 1916–17, 1919–20, and since 1922.

†SEWALL, CHESTER DURBIN, (1) Pacific 6042
Clinical Instructor in Medicine, 350 Post, SF-sf

M.D., Cooper Medical College, 1906. At Stanford since 1914.

†SEWALL, EDWARD CECIL, (123) Fillmore 4242
Clinical Professor of Surgery (Otology, Rhinology, Laryngology), 3515 Pacific, SF-sf

A.B., Stanford, 1898; M.D., Cooper Medical College, 1902. Assistant and Instructor in Ophthalmology, Cooper Medical College, 1901–07, Assistant Professor, 1907–09; Student in Freiburg, 1909–10; Associate Professor of Diseases of Eye, Ear, Nose, and Throat, Cooper Medical College, 1910–12. At Stanford since 1912.

†SEWARD, SAMUEL SWAYZE, JR., (124) PA 779W
Associate Professor of English, 262 Kingsley-p

A.B., Columbia, 1896, A.M., 1897. Scholar in Literature, Columbia University, 1896–97, Assistant in Literature, 1897–99; Student, Oxford University, 1899–

1900; Acting Professor of English, University of Nevada, 1907; Assistant Professor of English, University of California, Summer Session, 1907, University of Oregon, Summer Session, 1908. At Stanford since 1900.

†SHAFER, GEORGE DANIEL, (1234)
Instructor in Physiology, 321 Melville-p

A.B., Indiana, 1900; A.M., Stanford, 1906; Ph.D., Cornell, 1908. Fellow in Entomology and Invertebrate Zoology, Cornell University, 1906–08; Research Assistant, Experiment Station, Michigan Agricultural College, 1908–14, Associate, 1914–17. At Stanford since 1918.

†SHANNON, GEORGE POPE, (123) Redwood 1703F5
Instructor in English, Portola, Redwood City-RFD, rc

A.B., Vanderbilt, 1917.

SIMPSON, JOHN LOWREY, (123) PA 1386J
Associate, Food Research Institute, Kingscote

B.L., California, 1913.

†SLOAN, WILLIAM HENRY, (123) PA 1954W2
Assistant Professor of Chemistry, Alta Mesa, Box 105, p

A.B., Stanford, 1903, A.M., 1904. Student, University of Leipzig, 1904–05; Assistant Chemist, San Francisco Board of Health, 1905–06. At Stanford, 1903–04, and since 1906.

†SLONAKER, JAMES ROLLIN, (123) PA 451
Assistant Professor of Physiology, 334 Kingsley-p

B.S., Wisconsin, 1893; Ph.D., Clark, 1896. Fellow in Biology, Clark University, 1893–96; with United States Fish Commission, Woods Hole (Mass.), Summer, 1895; Instructor in Zoology, Indiana University, 1896–99, Indiana University Biological Station, 1896–1900; Assistant Professor of Zoology, Indiana University, 1899–1901; Research Assistant in Neurology, University of Chicago, 1901–02, Associate in Neurology, 1902–03. At Stanford since 1903.

†SMITH, EVERETT WALLACE, (123) PA 1041
Associate Professor of English, 21 Alvarado

A.B., Stanford, 1899. At Stanford since 1910.

†SMITH, JAMES PERRIN, (123) PA 1218W
Professor of Paleontology, 1335 Cowper-p

A.B., Wofford College, 1884; A.M., Vanderbilt, 1886; Ph.D., Göttingen, 1892; LL.D., Wofford College, 1916. Assistant Geologist and Chemist, Arkansas Geological Survey, 1887–90; Assistant Geologist, U. S. Geological Survey, 1895–1906, Geologist since 1906. At Stanford since 1892.

[†SMITH, STANLEY ASTREDO, Redwood 285W
Associate Professor of Romanic Languages,
2 Finger, Redwood City-rc

A.B., Stanford, 1903, A.M., 1905. Assistant in Romanic Languages, Stanford University, 1903–04, Instructor, 1904–07; Student, Universities of Paris and Madrid, 1906–07; Instructor in French and Italian, University of Washington, 1907–11; Student, Harvard University, 1911–13, Instructor in Romance Languages, 1912–13; Professor of Romance Languages, Reed College, 1913–14. At Stanford, 1903–07, and since 1914.]

SNELL, ELIZABETH BURRITT (MRS.), (1234) PA 508R
Appointment Secretary, 551 University

A.B., Stanford, 1908. At Stanford since 1916.

†Snyder, John Otterbein, (1234) PA 1081M
Associate Professor of Zoology, 8 Alvarado

A.B., Stanford, 1897, A.M., 1899. Assistant, U. S. Fish Commission, 1897, 1899, 1904, 1915, 1916; Naturalist on U. S. S. "Albatross" engaged in deep sea investigations, 1902, 1906; Expert Ichthyologist, U. S. National Museum, 1914; Fisheries Expert, Fish and Game Commission of California, since 1919. At Stanford since 1897.

Solalinde, Antonio García, (4)
Acting Professor of Romanic Languages
(Summer Quarter), Faculty Club, Berkeley

Ph.D., University of Madrid. Professor of Spanish, Centro de Estudios Históricos, Madrid; Chairman of the Oficina de Relationes Culturales Españolas; Lecturer in the United States for the Instituto de las Españas.

†Somers, George Burbank, (123) Redwood 1704F13
Clinical Professor of Gynecology, Lane Hospital, SF-sf

A.B., Harvard, 1886; M.D., Cooper Medical College, 1888. Chief Surgeon, San Francisco Emergency Hospital, 1891–95; Adjunct to Chair of Gynecology, Cooper Medical College, 1889, Professor of Gynecology, 1901; Gynecologist to Lane Hospital, 1900–12. At Stanford since 1911.

†Spalding, Alfred Baker, (124) Fillmore 826
Professor of Obstetrics and Gynecology, 2651 Green, SF-sf

A.B., Stanford, 1896; M.D., Columbia, 1900. House Surgeon, General Memorial Hospital, New York, 1900–01; Assistant Resident Physician, Sloane Maternity Hospital, New York, 1901–02; Instructor in Obstetrics, University of California, 1902–05, Assistant Professor, 1905–09, Professor, 1909–12. At Stanford since 1912.

†Spiro, Harry, (1234) Fillmore 851
Clinical Instructor in Medicine, 212 Stockton, SF-sf

Ph.G., California, 1893; M.D., Cooper Medical College, 1904. Instructor in Pharmacology, Cooper Medical College, 1905–07. At Stanford since 1919.

Stanley, Edward John, (123) PA 544W
Teaching Specialist in Pattern Making, 269 Hawthorne-p

Machinist with Pacific Iron Works, San Francisco, 1879, Blacksmith, 1880, Draughtsman, 1881, Pattern Maker, 1883–86; Third Assistant Engineer, Steamer "Alabama," 1882; Foreman Pattern Maker, Union Iron Works, San Francisco, 1886–1901, 1906. At Stanford since 1901.

Starks, Chloe Lesley (Mrs.), (134) PA 812M
Assistant Professor of Education (Graphic Art), 1115 Ramona-p

At Stanford since 1899.

†Starks, Edwin Chapin, (123) PA 812M
Assistant Professor of Zoology, 1115 Ramona-p

Assistant in United States Bureau of Biological Survey, 1897–99; Curator of the Museum and Assistant Professor of Zoology, University of Washington, 1899–1900. At Stanford since 1900.

†Stebbins, Horatio Ward, (123) PA 316
Assistant Professor of Mechanical Engineering, 327 Addison-p

A.B., California, 1899; B.S., Massachusetts Institute of Technology, 1902. Assistant to Engineer of Tests, Southern Pacific Railroad Company, 1902–05; Engineer and Estimator, San Francisco Bridge Company, 1905–13. At Stanford since 1914.

†STEPHENSON, HENRY AUGUSTUS, (123) Sutter 3560
Assistant Clinical Professor of Obstetrics and Gynecology,
516 Sutter, SF-sf

A.B., Randolph-Macon College, 1906; M.D., Johns Hopkins Medical School, 1910. Assistant Resident Obstetrician, Johns Hopkins Hospital, 1911–12, Resident Obstetrician, 1912–14; Assistant in Obstetrics, Johns Hopkins Medical School, 1911–12, Instructor, 1912–14. At Stanford since 1914.

†STEVENS, WILLIAM EMERSON, (1234) West 700
Assistant Clinical Professor of Obstetrics and Gynecology
(Urology), 1007 Gough, SF-sf

M.D., California, 1899. Chief of Genito-Urinary Department, Mount Zion Hospital and Mount Zion Clinics; Chief of Genito-Urinary Department and Department of Urology in Women, San Francisco Polyclinic and Post Graduate School of Medicine; Genito-Urinary Surgeon, Bethlehem Shipbuilding Corporation (Ltd.) Hospital; Gynecological Urologist, San Francisco County Hospital. At Stanford since 1922.

STILLMAN, MINNA, (1234) PA 1048
Document Librarian, 2 Alvarado

A.B., Stanford, 1903. At Stanford since 1912.

†STILLMAN, STANLEY, (1234) West 1034
Professor of Surgery, 2336 Broadway, SF-sf

M.D., Cooper Medical College, 1889. Adjunct Professor of Surgery, Cooper Medical College, 1895–98, Professor of Surgery, 1898–1912; Assistant Visiting Surgeon, City and County Hospital, San Francisco, 1891–99, Visiting Surgeon, 1899–1912; Chief Surgeon, Lane Hospital, 1895–1912; Lieutenant Commander, U. S. N. R. F., 1917–19. At Stanford since 1909.

STOLTENBERG, CLARA S., (123) PA 199
Associate Professor of Physiology, 9 Salvatierra

A.B., Stanford, 1896, A.M., 1897. At Stanford since 1896.

†STONE, CALVIN PERRY, (124)
Assistant Professor of Psychology, 707 Addison

A.B., Indiana, 1915, A.M., 1916; Ph.D., Minnesota, 1921. Teaching Fellow in Education, University of Minnesota, 1916; Director of Psychological Research, Indiana State Reformatory, 1916–17; Psychological Examiner, U. S. Army, 1917–19; Teaching Fellow in Psychology, University of Minnesota, 1919–21; Instructor in Neural and Histological Anatomy, University of Minnesota, 1921–22. At Stanford since 1922.

†STUART, HENRY WALDGRAVE, (124) PA 1060R
Professor of Philosophy, 20 Cabrillo

Ph.B., California, 1893; Ph.D., Chicago, 1900. Teacher, Hollister (Cal.) H. S., 1893–94; Fellow in Political Economy, University of Chicago, 1894–96; Instructor (Pro tem.) in Economics and Psychology, Washington University, St. Louis, 1896–97; Teacher, Central School, Oakland (Cal.), 1897 98; Principal, Woodland (Cal.) H. S., 1898–99; Fellow in Philosophy, University of Chicago, 1899–1900; Instructor in Economics and History, Ripon College, 1900–01; Instructor in Philosophy, State University of Iowa, 1901–04; Acting Professor of Philosophy, Lake Forest College, 1904–05, Assistant Professor, 1905–07. At Stanford since 1907.

SUTLIFF, HELEN BINNINGER, (1243) PA 876
Chief Cataloguer, Library, 19 Salvatierra

A.B., Kansas, 1890. Head Cataloguer, University of Kansas Library, 1891–1905; Cataloguer in Columbia University Library, Summer, 1901. At Stanford since 1904.

†SWAIN, ROBERT ECKLES, (14) PA 247
Professor of Chemistry, 10 Mirada

A.B., Stanford, 1899; M.S., Yale, 1901, Ph.D., 1904. Student, Universities of Strassburg and Heidelberg, 1901–02, Yale University, 1909–10. At Stanford since 1898.

†SWETMAN, RALPH WALDO, (4)
Acting Instructor in Education (Summer Quarter), Menlo Heights

Ph.B., Hamilton, 1907; A.M., Columbia, 1917. Superintendent of City Schools, Groton, Camden, and Palmyra (N. Y.), 1907–16; Director of Training, State Normal School, Ellensburg, Wn., 1917–18, Director of Extension Service, 1919–22; Director, Washington 30-10 Initiative Campaign, 1922; Cubberley Fellow in Education, Stanford University, 1922–23.

TAYLOR, CHARLES VINCENT, (4)
Acting Assistant Professor of Zoology (Summer Quarter), Pacific Grove-pg

A.B., California, 1911, A.M., 1916, Ph.D., 1918. Teaching Fellow in Zoology, University of California, 1915–18, Instructor, 1918–19, Assistant Professor, since 1920; Johnston Scholar, Johns Hopkins University, 1919–20.

†TATLOCK, JOHN S. P., (124) PA 1061M
Professor of English Philology, 5 Santa Ynez

A.B., Harvard, 1896, A.M., 1897, Ph.D., 1903. Student, Universities of Michigan, 1899–1901, Freiburg im Breisgau, 1904; Instructor in English, University of Michigan, 1897–1901, 1903–05, Assistant Professor, 1905–07, Junior Professor, 1907–12, Professor, 1912–15; Professor of English, University of Chicago, Summer Quarter, 1909, Dartmouth College, Summer Session, 1914. At Stanford since 1915.

TAYLOR, ALONZO ENGLEBERT, (234) PA 1368J
Director, Food Research Institute, Kingscote

M.D., Pennsylvania, 1904; LL.D., Wisconsin, 1920. Student, University of Berlin, 1890–91, 1899–1900; Instructor, University of Pennsylvania, 1897–99; Professor of Pathology, University of California, 1900–10; Professor of Pathological Chemistry, University of Pennsylvania, 1910–21. At Stanford since 1921.

†TEMPLETON, ROBERT LYMAN, (123) PA 1590
Track Coach, 535 Fulton-p

A.B., Stanford, 1921.

†TERMAN, LEWIS MADISON, (1234) PA 1178
Professor of Psychology, 9 Dolores

A.B., Indiana, 1902, A.M., 1903; Ph.D., Clark University, 1905. Fellow in Psychology and Education, Clark University, 1903–05; Principal of High School, San Bernardino (Cal.), 1905–06; Head of Department of Child Study and Pedagogy, Los Angeles State Normal School, 1906–10; Instructor in Education, Indiana University, Summer Session, 1909, New York University, Summer Session, 1916, Columbia University, Summer Session, 1917; Major, Division of Psychology, Surgeon General's Office, Washington (D. C.), 1918. At Stanford since 1910.

†THOMAS, EARL CHARLES, (123) PA 1611W
Assistant Professor of Civil Engineering, 251 Katherine

A.B., Stanford, 1914. Instructor in Railroad Engineering, A. E. F. University, Beaune, France, 1919. At Stanford since 1920.

THORNHILL, CLAUDE E., (13)
Assistant Coach in Football, 334 S. Westlake ave., Los Angeles-la

†TICKELL, FREDERICK GEORGE, (123) PA 1417M
Associate Professor of Petroleum Technology, 652 Forest-p

B.S., California, 1912. Enigneer at Dawson, Y. T., for the Yukon Gold Co., 1912; Assistant in Mineralogy, University of California, 1913; Engineer, Croesus Gold Mining and Milling Co., 1914–15; Geologist and Petroleum Engineer, Southern Pacific Co., 1916–21. At Stanford since 1921.

†TOLMAN, CYRUS FISHER, JR., (234) PA 1052R
Professor of Economic Geology, 6 Alvarado

B.S., Chicago, 1896. Fellow in Geology, University of Chicago, 1897–98; Consulting Economic Geologist, since 1898; Professor of Geology, University of Arizona, 1905–06, Professor of Geology and Mining, 1906–12; Territorial Geologist of Arizona, 1910–12. At Stanford since 1912.

†TOWNE, EDWARD BANCROFT, (1234) Fillmore 3270
Assistant Professor of Surgery, 3300 Clay, SF-sf

A.B., Harvard, 1906, M.D., 1913. House Officer and Assistant Resident Surgeon, Peter Bent Brigham Hospital, Boston, 1913–15; Honorary Medical Officer, Royal Army Medical Corps, France, 1915–16; Voluntary Assistant, Mayo Clinic, 1916–17; Assistant Resident Surgeon, Brigham Hospital, and Assistant in Surgery, Harvard Medical School; Lieutenant, Captain, and Major, Medical Corps, U. S. A., A. E. F., 1917–19. At Stanford since 1919.

†TOWNLEY, SIDNEY DEAN, (134) PA 1016
Professor of Applied Mathematics, 21 Cabrillo

B.S., Wisconsin, 1890, M.S., 1892; D.Sc., Michigan, 1897. Fellow in Astronomy, University of Wisconsin, 1890–91, Assistant in Astronomy and Mathematics, 1891–92; Hearst Fellow in Astronomy, University of California (Lick Observatory), 1892–93; Instructor in Astronomy, University of Michigan, 1893–95, 1896–98; Student, Universities of Berlin and Munich, 1895–96; Instructor in Practical Astronomy, University of California, 1898–1903, Lecturer in Astronomy, 1904–07; Astronomer in charge of International Latitude Observatory, 1903–07. At Stanford since 1907.

TRACE, GERTRUDE MAY, (123) SJ 1915M
Instructor in Psychology, 730 University, SJ

A.B., Stanford, 1914. Student, University of Chicago, 1914–15, Stanford University, 1914, 1915, 1916–17. At Stanford since 1917.

†TREAT, PAYSON JACKSON, (123) PA 1128
Professor of History, 8 Dolores

A.B., Wesleyan, 1900; A.M., Columbia, 1903; Ph.D., Stanford, 1910. Instructor in History, Barnard School, New York City, 1900–03; Graduate Student, Stanford University, 1903–05; Research Student in Far East, 1906–07; Instructor in Government, Harvard University, 1908–09; Lecturer in Political Science, University of California, Second Semester, 1915–16. At Stanford since 1905.

TROTTER, REGINALD GEORGE, (123) PA 1196
Assistant Professor of History, Union

A.B., Yale, 1911; A.M., Harvard, 1915, Ph.D., 1921. History Master, Thacher School, Ojai (Cal.), 1911–14; Parker Traveling Fellow in Canadian History, Harvard University, 1916–17, Austin Teaching Fellow in History, 1917–18, Instructor in History, 1918–19; Lecturer in European History, Boston University, April–June, 1918; Lecturer in Charge of War Issues Course, Northeastern College, Fall Term, 1918; Eric Dennis Lecturer in Political Science, Dalhousie University, March, 1919. At Stanford since 1919.

TRUE, HELEN ELLA, (1234) PA 538R
Secretary to the President, 682 University

A.B., Mt. Holyoke, 1905. At Stanford since 1914.

†True, Latham, (1)
Acting Organist (Autumn Quarter), 2 Salvatierra
B.Mus., University of Toronto; D.Mus., New York German Conservatory.

†Tupper, Roland Beatty, (123) Fillmore 877
Assistant Clinical Professor of Medicine, 2720 Pierce, SF-sf
M.D., Cooper Medical College, 1910. Assistant Visiting Physician, St. Luke's Hospital, since 1912; Assistant in Pediatrics, Cooper Medical College, 1912; Assistant Visiting Physician, San Francisco Hospital, since 1912; on Diagnostic Section, St. Luke's Hospital Clinical Club, since 1915; with U. S. N., Base Hospital No. 2, 1918. At Stanford since 1912.

†Vernier, Chester Garfield, (123) PA 254
Professor of Law, 21 Mirada
A.B., Butler College, 1903; J.D., Chicago, 1907. Graduate Scholar, University of Chicago, 1904–05; Instructor in Law, Indiana University, 1907–08; Professor of Law, University of Nebraska, 1908–10, Indiana University, 1909–11, University of Illinois, 1911–16; Lecturer in Law, University of Chicago, Summer Quarter, 1911, 1912, University of Michigan, Summer Session, 1914. At Stanford since 1916.

†Vestal, Arthur Gibson, (123) PA 602R
Assistant Professor of Biology, 301 Pope
A.B., Illinois, 1911; A.M., Colorado, 1913; Ph.D., Chicago, 1915. Instructor in Biology, University of Colorado, 1911–14, and Summer Sessions, 1919, 1920; Professor of Biological Sciences, Eastern Illinois State Normal School, 1915–20.

†Wallis, Lawrence Bergmann, (123) PA 33
Instructor in English, 201 Homer-p
A.B., Dartmouth, 1918; A.M., Harvard, 1921. Submaster and Teacher of English, Hanover (N. H.) High School, 1919; Instructor in English Composition, Wabash College, 1919–20. At Stanford since 1921.

Walsh, Mary, (1234) West 6193
Instructor in Practice of Nursing, Lane Hospital, SF-sf

†Warner, Glenn Scobey, (3)
Advisory Coach in Football, Springville, N. Y.
LL.B., Cornell University, 1894.

†Webster, David Locke, (23) PA 1028M
Professor of Physics, County Road
A.B., Harvard, 1910, Ph.D., 1913. Assistant in Mathematics, Harvard University, 1909–10, Instructor, 1910–14, Assistant in Physics, 1911–15, Instructor, 1915–17; Assistant Professor of Physics, University of Michigan, 1917; 1st Lieut., Science and Research Division, A. S. S. R. C., later B. A. P., 1917–18, Captain, 1918; Assistant Professor of Physics, Massachusetts Institute of Technology, 1919–20. At Stanford since 1920.

†Welty, Cullen Francis, (123) Pacific 1874
Lecturer in Otology, Rhinology, and Laryngology,
18 Presidio Terrace, SF-sf
M.D., Pennsylvania, 1890. Volunteer Assistant, Ear Clinic, University of Vienna, and Private Assistant Docent Doctor Hajek, Vienna, 1901–03; Ear, Nose, and Throat Surgeon, San Francisco Polyclinic and City and County Hospital, since 1903.

†Wenzel, Robert Nicolas, (123) PA 782J
Instructor in Applied Mathematics, 1112 Ramona-p
A.B., Stanford, 1916, Engineer (in Chemistry), 1917.

†West, Victor J., (134) PA 291J
Professor of Political Science, 376 Addison

Ph.B., Chicago, 1905. Instructor in English and Civics, Bradley Polytechnic Institute, 1905–06; Fellow in Political Science, University of Chicago, 1908–10, Assistant in Political Science, 1910; Instructor in Politics, Northwestern University, 1910–13; Assistant Chief of Service, Illinois Progressive Service Board, 1913; Instructor in Political Science, University of California, Summer Session, 1915; Special Investigator, U. S. Bureau of Efficiency, 1918. At Stanford since 1913.

†Weymouth, Frank Walter, (234)
Associate Professor of Physiology, 3 Salvatierra

A.B., Stanford, 1909, A.M., 1911, Ph.D., 1923. Assistant in Physiology, Johns Hopkins University, 1912–13. At Stanford since 1910.

†Whitaker, Albert Conser, (123) PA 1081J
Professor of Economics, 9 Alvarado

A.B., Stanford, 1899; Ph.D., Columbia, 1904. Scholar in Economics, Columbia University, 1899–1900. Fellow, 1900–01; Student, University of Berlin, 1901; Lecturer in Economics and Social Science, Columbia University, 1906–07; Lecturer in Economics, University of California, Summer Sessions, 1906, 1911; Acting Professor of Economics, University of Chicago, second half of 1911–12 and 1912–13. At Stanford since 1902.

White, Sarah Gertrude, (1234)
Instructor in the Theory of Nursing, 2340 Clay, SF-sf

B.S., Teachers College, Columbia University, 1922. Graduate, Pasadena Hospital School of Nursing, 1918; Instructor's and Supervisor's Diploma, Teachers College, Columbia, 1922. At Stanford since 1922.

Whitmire, Ethel Dorothy, (123)
Lecturer in Abnormal Psychology,

A.B., Stanford, 1907.

†Whittier, Clarke Butler, (123) Menlo Park 1243R
Professor of Law, Menlo Heights

A.B., Stanford, 1893; LL.B., Harvard, 1896. Attorney at Law. Los Angeles, 1895–96; Student, Stanford University, 1896–97, Instructor in Law, 1897–99, Assistant Professor, 1899–1900, Associate Professor, 1900–02; Professor of Law, University of Chicago, 1902–14. At Stanford, 1897–1902, and since 1915.

†Wilbur, Ray Lyman, (1234) PA 46
President of the University, Lagunita Knoll

A.B., Stanford, 1896, A.M., 1897; M.D., Cooper Medical College, 1899; LL.D., California, 1919, Arizona, 1919. Assistant in Physiology, Stanford University, 1894–96, Instructor, 1896–97, Assistant Professor, 1900–03; Lecturer and Demonstrator in Physiology, Cooper Medical College, 1899–1900; Professor of Medicine, and Dean of the Stanford Medical School, 1909–16. At Stanford, 1894–97, 1900–03, and since 1909.

†Wildman, Murray Shipley, (1) PA 1179
Professor of Economics, 37 Salvatierra

A.B., Earlham, 1893; Ph.D., Chicago, 1904. Professor of History and Economics, Central College (Mo.), 1904–05; Instructor in Economics, University of Missouri, 1905–06, Assistant Professor, 1906–08; Acting Assistant Professor, University of Chicago, Summer Quarter, 1909; Assistant Professor of Economics and Commerce, Northwestern University, 1909–11, Professor, 1911–12. At Stanford since 1912.

†WING, CHARLES BENJAMIN, (123) PA 445W
Professor of Structural Engineering, 345 Lincoln

C.E., Cornell, 1886. Fellow in Civil Engineering, Cornell University, 1886–87, Instructor, 1887–90, Assistant Professor, 1890–91; Engineer, Pompton (N. J.) Powder Co., 1887, Phoenix Powder Co., Farmingdale (N. J.), 1888; Assistant Engineer, Berlin (Conn.) Iron Bridge Co., 1889–90; Professor of Bridge and Hydraulic Engineering, University of Wisconsin, 1891–92. At Stanford since 1892.

†WOLFSOHN, JULIAN MAST, (123) Franklin 2381
Associate Clinical Professor of Medicine (Neurology),
2961 Pacific, SF-sf

A.B., University of California, 1905, M.S., 1907; M.D., Johns Hopkins University Medical School, 1911. Research Assistant, Herzstein Laboratory, University of California, 1906–07; Medical House Officer, Johns Hopkins Hospital, 1911–12; Captain, M. R. C., U. S. A., 1917–19. At Stanford since 1913.

†WOLTER, HARRY, (23) PA 1185M
Director of Baseball, Cowper Court-p

†WOOLSEY, CHESTER HOWARD, (123) Fillmore 941
Clinical Instructor in Surgery (Genito-Urinary),
2220 Sacramento, SF-sf

B.S., California, 1895, M.D., 1901. Assistant to Chair of Clinical Medicine, University of California, 1902–06; State Bacteriologist, California, 1903–04; Assistant to Chair of Genito-Urinary Surgery, Cooper Medical College, 1911–12; Surgeon in Reserve, U. S. Public Health Service. At Stanford since 1912.

†WRIGHT, AUSTIN TAPPAN, (1)
Acting Professor of Law (Autumn Quarter),
1733 San Pedro, Berkeley-b

A.B., Harvard, 1905, LL.B., 1908. Student, Oxford University, 1906–07; Attorney at Law, Boston, Mass., 1908–16; Associate Professor of Law, University of California, 1916–18, Professor, since 1918; Assistant Counsel, United States Shipping Board and United States Shipping Board Emergency Fleet Corporation, 1918–19; Proctor in Admiralty, San Francisco, since 1919.

WYCKOFF, HARRY ALPHONSO, (123) Oakland 7902
Instructor in Medicine, 417 Oakland, Oakland-o

A.B., Stanford, 1907, M.D., 1916. Head of Department of Physical Education, Los Angeles High School, 1907–12; Bacteriologist, San Francisco Board of Health Laboratories, 1917; Pathologist, Napa State Hospital, 1918. At Stanford since 1919.

†YERINGTON, HENRY HERBERT, (123) Fillmore 2479
Associate Clinical Professor of Medicine (Pediatrics),
2919 Pacific, SF-sf

M.D., Columbia University, 1908. Student, Stanford University, 1900–04, Bellevue Hospital, New York, 1909–10; House Physician, Pediatric Service, Bellevue Hospital, 1909–10; Instructor in Pediatrics, Cooper Medical College, 1910–11; Visiting Pediatrician, San Francisco Hospital, Assistant Visiting Staff, Children's Hospital, San Francisco. At Stanford since 1913.

YOST, MARY, (1234) PA 1203
Dean of Women, and Associate Professor of English, 2 Lasuen

A.B., Vassar, 1904, A.M., 1912; Ph.D., Michigan, 1917. Graduate Scholar, Vassar College, 1904–05; Fellow, University of Michigan, 1913–15; Assistant in English, Wellesley College, 1906–07; Instructor in English, Vassar College, 1907–13; Assistant Professor, 1915–21; Reader, College Entrance Examination Board, 1912–18, Head Reader and Examiner, 1918–21. At Stanford since 1921.

YOUNG, STEWART WOODFORD, (123)
Professor of Physical Chemistry, Menlo Heights
B.S., Cornell, 1890. Assistant in Chemistry, Cornell University, 1890–91; Instructor in Chemistry, Swarthmore College, 1891–93. At Stanford since 1893.

†ZOBEL, ALFRED JACOB, (123) Pacific 119
Lecturer on Proctology, 352 Lake, SF-sf
M.D., Cooper Medical College, 1898. Assistant Prosector, Anatomy Department, Cooper Medical Department, 1899–1900, Assistant Medical Clinic, 1899; Assistant Medical Clinic, San Francisco Polyclinic, 1901–03, Associate Professor in Medicine, 1904–05, Associate Professor of Proctology, 1906–09, Chief of Department of Rectal Surgery, since 1909; Consulting Rectal Surgeon, Mt. Zion Hospital, 1917; Visiting Rectal Surgeon, San Francisco Hospital, since 1908. At Stanford since 1918.

ASSISTANTS IN INSTRUCTION AND RESEARCH

Aho, Leonard, English, (4) 559 Cowper-p

Ambler, Alfred C., Physiology, (4) Pacific Grove-pg
A.B.

†Ashley, Rea, Surgery (Ear, Nose, Throat), (123) 216 4th st., SF-sf
B.S., University of Illinois, 1917, M.D., 1919. Assistant, Department of Bacteriology and Pathology, University of Illinois, 1917-19; Assistant Resident Physician, Stanford University Hospital, 1919–21.

Bailiff, Laurence Deane, Romanic Languages, (123) 224 Union
A.B., Stanford, 1918, A.M., 1919.

Baldwin, Bird T., Psychology (Commonwealth Fund), (3)

Beach, Walter Edwards, Economics, (3)
A.B.

Becker, George Henry, Medicine (Dermatology), (123)
Sutter 5533) 240 Stockton, SF-sf
A.B., California, 1916; M.D., Stanford, 1921.

Benzinger, Martin J., Medicine, (123) 516 Sutter, SF-sf
B.S., Cincinnati, 1916, M.D., 1918. Assistant in Surgery, San Francisco Polyclinic, 1921.

Betts, Forest Arthur, Encina Gymnasium (Football), (1) 4 Union
A.B.

Bishop, Bradford, Geology, (4) Sargent-s
A.B., Stanford, 1923.

Bronson, Edith, Psychology (Commonwealth Fund), (23)
(Douglas 6957) 240 Stockton, SF-sf

Bunds, Lester A., Chemistry, (1) 1390 Santa Clara, SC-sc
A.B.

Burdick, William Leroy, Chemistry, (4) 1740 Middlefield-p
A.B., Kansas, 1909, A.M., 1912; Ph.D., Stanford, 1923.

Burk, Georgina, Physical Education, (123) San Juan

Burr, Susan Sophia, Food Research Institute, (1234) University Park
A.B., Vassar, 1920; A.M., Stanford, 1922.

Callison, Fred W., Surgery (3) (Pacific 5906) 57 Ashbury, SF-sf
M.D., College of Physicians and Surgeons, San Francisco, 1918. Interne, Stanford Service, San Francisco Hospital, 1918; Resident Physician, St. Francis Hospital, 1918–19, San Francisco Polyclinic, 1919–22; Assistant, Surgical Clinic, San Francisco Polyclinic, since 1922.

Campbell, John Lockhart, Clinic Dentist, (123)
1820 62nd st., Berkeley-b
D.D.S., California, 1917.

†von Christierson, Sigurd, Surgery (Ear, Nose, Throat), (123) (West 6193) Lane Hospital, SF-sf
A.B., Stanford 1917, M.D., 1922.

†Clay, Harry E., Obstetrics and Gynecology, (123) (Fillmore 1540)
2710 Baker, SF-sf
M.D., Rush Medical College, 1904. House Surgeon, Passavant Memorial Hospital, 1904–05; Assistant Professor of Surgery, Willamette University (Ore.), 1911–12; Chair of Gynecology, Willamette University, 1912–15; Member, Oregon State Board of Health, 1916, until entry into service; Captain, U. S. A., 1917, Major, 1918.

Clifford, Connell, Economics, (123) 115 Everett-p
A.B., Stanford, 1920.

†Coe, Harry Carson, Medicine, (123) (Douglas 112) 240 Stockton, SF-sf
A.B., Stanford, 1918, M.D., 1922.

Davis, Hester Ruth, Botany, (1234) (PA 513W) 362 Lincoln, Mayfield
A.B., Stanford, 1921, A.M., 1922.

Donoho, Truman Lawrence, Romanic Languages, (123) (PA 711W)
1130 Bryant
A.B., Stanford, 1922.

†Dudley, Hubert W., Surgery (Eye), (123) (SR 370J)
231 Bayview, San Rafael-sr
M.D., Jefferson Medical College, 1888; M.D., Central College of Physicians and Surgeons, 1899. House Surgeon, New York Aural and Ophthalmic Hospital, 1900–01; Clinical Assistant and Special Student, Massachusetts General Hospital, 1910–11.

Duncan, Hiram B., Surgery (3) (Bayview 388) 406 16th ave., SF-sf
M.D., St. Louis University, 1912. Interne, St. Mary's Hospital and French Hospital, 1912–15; Medical Corps, U. S. N., 1917–21; Genito-Urinary Clinic, San Francisco Polyclinic, 1914–17, Surgical Clinic, since 1921.

Edwards, Muriel Emma, Anatomy, (123) Roble
A.B., Stanford, 1921.

d'Ercole, Victor, Surgery (Ophthalmology), (123) (Franklin 6418)
1411 Sacramento, SF-sf

Estus, Mildred Margaret, Classical Literature (Latin), (123)
920 Scott-p
A.B., Stanford, 1922.

Fabb, Christine, Physical Education, (123) (PA 538R) 682 University

Fast, Lisette Emery, Research Assistant, Food Research Institute. (123) (PA 1580J) 528 Lincoln
A.B., Stanford, 1919.

†Fearing, Franklin Smith, Psychology, (234) 177 Tasso-p
A.B., Stanford, 1923.

Fenner, Beatrice Aletha, Mathematics, (12) (PA 1569J) 602 Cowper-p
A.B., Stanford, 1922.

Fernish, Charles A., Bacteriology, (1) 40 Encina
A.B., Stanford, 1921.

Gagos, Kenneth A., Chemistry, (34) 1001 Cowper
A.B., Stanford, 1922.

von Geldern, Hans, Obstetrics and Gynecology, (1234) Stanford Hospital, SF-sf
A.B., University of California, 1916; M.D., Stanford, 1920.

Gillan, Lela Opal, Psychology, (2) (Commonwealth Fund), (1) Madroño
A.B., Nebraska Wesleyan, 1916; A.M., Stanford, 1920.

†Glaeser, W. Edward, Medicine (Tuberculosis), (123) (Valencia 2369) 3007 24th st., SF-sf
M.D., Hahnemann (U. C.), 1918. Interne, San Francisco Hospital, 1917–18, Resident Physician, Tuberculosis Department, since 1918.

Gonzales, Francisco Leopoldo, Bacteriology, (1) (PA 533W) 455 Forest-p
A.B., Stanford, 1922.

Goodenough, Florence, Psychology, (Commonwealth Fund), (123) Kingscote
B.S., Columbia, 1920, A.M., 1921.

†Green, Herlwyn R., Anatomy, (123) 1121 Emerson-p
A.B., Brown, 1897, A.M., 1899; M.D., Pennsylvania, 1903.

Greene, Helen Hartley, Research Assistant in Physiology and General Biology, (3) 15 Lasuen
A.B., Stanford, 1923.

Gregersen, Halfdan Ingstrup, Romanic Languages, (123) (PA 1252J) 525 Forest-p
A.B., Stanford, 1922.

†Guilfoil, James Anthony, Medicine, (123) (Prospect 344) 611 Stanford Medical School Bldg., SF-sf
M.D., Michigan, 1911. Resident Physician, St. Francis Hospital, 1911–12; First Lieutenant, U. S. A., 1918–19.

Gwinn, Charles Dudley, Dental Clinic, (123) (Garfield 885) Shreve Bldg., SF-sf
D.D.S., California, 1917. Lieut., Dental Corps, U. S. N. R. F., 1917–19. Instructor in Extraction, Dental Department, University of California, since 1919; Visiting Dentist, French Hospital, since 1920.

Haley, Bernard Francis, Economics, (123) 45 Sequoia
A.B., Stanford, 1922.

Hand, Alice Richards (Mrs.), English, (12) 563 Lowell-p
A.B., Stanford, 1905.

†Hansen, Joel H., Medicine (3) Mission 6689
A.B., Wisconsin; M.D., Jefferson Medical College, 1918.

Harris, Richard Charles, Geology, (4) Sargent-s
A.B., Stanford, 1922.

Harvey, James E., Medicine (Children's Clinic), (12)

Hawley, Edith Adeline, Research Assistant, Food Research Institute, (4) University Park
B.S., Columbia, 1919, A.M., 1920.

Hedges, Amelia Louise, Research Assistant in Political Science, (123) 558 Lincoln-p
A.B., Stanford, 1921.

Henderson, Ynez Marie, Botany, (12) Sigma Kappa
A.B., Stanford, 1922.

Hill, Mary Anderson, (Mrs.), English, (124) (PA 1077) Gamma Phi Beta
A.B., Vassar, 1889; A.M., Stanford, 1922.

Hobe, Adelaide, Research Assistant, Food Research Institute, (1234) (PA 801J) Stanford Park-Box 82, mp

†Jacobs, Jay, Medicine (Pediatrics), (12) (Sutter 2049) 1282 Flood Bldg., SF-sf
M.D., Cooper Medical College, 1911. Lieut., Medical Corps, U. S. N., 1917–20.

Jacobsen, Peter N., Women's Clinic (Obstetrics and Gynecology), (123) (Lakeside 5127) 479 Cheney, Oakland-o
B.S., Healdsburg College, 1901; M.D., Cooper Medical College, 1905. Interne, French Hospital, San Francisco, 1903–06; Student in Vienna, 1912–13.

Jones, James Walter, Surgery, (124) Lane Hospital, SF-sf
A.B., Stanford, 1913, A.M., 1914.

Kerr, Paul Francis, Geology, (4) Sargent-s
B.S., Occidental, 1919.

†Kile, Robert, Medicine (Hydrotherapy), (123) (Douglas 2825) Stanford Hospital, SF-sf
M.D., University of Pennsylvania, 1919.

King, Kathleen F. C., Research Assistant, Food Research Institute, (123) (PA 1151M) 3 Lasuen

†Kirk, Josiah Herman, Surgery (Ear, Nose, Throat), (123) (PA 1099) 251 Embarcadero-p
M.D., Cooper Medical College, 1906.

Kistler, Ray Henry, Surgery, (123) (Fillmore 5803) 516 Sutter, SF-sf
A.B., Stanford, 1915, M.D., 1919.

Klahn, Myrtle Olive, Romanic Languages, (123) 118 Roble
A.B., Stanford, 1922.

Kraemer, Mary Webster (Mrs.), (4)
Assistant in Classical Literature (Summer Quarter), 22 Lasuen
A.B., Stanford, 1897, A.M., 1917.

Kussart, Jeannette, Romanic Languages, (1) 370 Roble
A.B., Colorado State Teachers College, 1918.

†Lanz, Henry, Slavic, (1234) 918 Cowper-p

Lima, Ida Mary Margaret, English, (123) 815a Cowper
A.B., Stanford, 1922.

Livesay, Ruth Haines (Mrs.), Psychology (Commonwealth Fund), (4) 333 Lincoln
A.B., Pacific University, 1917.

Livingston, Arthur Dean, Chemistry, (1) 523 Encina
A.B., Stanford, 1922.

McDermoth, Alanson W., Chemistry, (4) 790 Palo Alto ave.
A.B., Stanford, 1920, A.M., 1921.

McPherson, James Douglas, Geology, (4) Sargent-s
A.B., Stanford, 1920, Engineer, 1922.

McRae, Donald M., Medicine, (3)

Marshall, Helen, Psychology (Commonwealth Fund), (123) Madroño
A.B., Lake Erie, 1913; M.A., Ohio State, 1918.

Michelson, Lewis, Obstetrics and Gynecology, (1234) (Fillmore 3685) 1562 Vallejo, SF-sf
M.D., Cooper Medical College, 1917. Student, Vienna, 1910–11; Special Worker, Brady Urological Institute, Johns Hopkins University, 1916–17; Director of Bureau of Social Hygiene, California State Board of Health, since 1918. At Stanford since 1917.

Milliken, Margaret F., Research Assistant, Food Research Institute (4) University Park
A.B., Vassar, 1922.

†Moore, Albert H., Psychology (Commonwealth Fund), (23) 6422 Hollywood Blvd., Los Angeles-la

†Moore, Harold Staats, Surgery (Ear, Nose, Throat), (12)
(Kearny 190) 516 Sutter, SF-sf
M.D., Medical College of Indiana, Purdue University, 1898. Assistant Surgeon, U. S. A., 1910–11; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1910.

†Munger, Arthur Lee, Obstetrics and Gynecology, (123)
(Prospect 344) 909 Hyde, SF-sf
A.B., Stanford, 1910, M.D., 1913.

Neal, Finley Farrand, Physics, (234) 234 Union
B.S., Washburn, 1919.

Newson, John Branner, Geology, (4) Sargent-s
A.B., Stanford, 1922.

Nye, Helena May, German, (1234) (PA 1189J) 281 Addison-p
A.B., Stanford, 1905.

Ostroff, Robert Allison, Surgical Clinic, (4) 321 Grant ave., SF-sf
A.B., Nevada, 1915; M.D., Stanford, 1919.

†Page, Benjamin H., Anatomy, (12) (SM 309M)
225 Minnie, San Mateo-sm
A.B., Stanford, 1922.

Parrott, James Clifford, Medicine (Pediatrics), (3) Garfield 146
M.D., Stanford, 1920.

Perry, Elizabeth, Research Assistant, Food Research Institute (4)
27 Salvatierra
B.S., Simmons, 1914; A.M., Stanford, 1920.

Presho, N. Elizabeth, Pharmacology, (1234) (West 8517)
2548 Fillmore, SF-sf
A.B., Stanford, 1921.

†Price, Merton James, Surgery (Ear, Nose, Throat), (123)
(Douglas 6440) 1211 Flood Bldg., SF-sf
A.B., Stanford, 1913, M.D., 1916.

Raubenheimer, Albert Sydney, Psychology (Commonwealth Fund),
(123) 627 Bryant
A.M., Columbia, 1921.

Rehfuss, Carl William, Chemistry, (123) 318 Encina
A.B., Stanford, 1922.

Rethwilm, Lorruli Anna, Surgery (Anesthesia), (123)
Stanford Hospital, SF-sf
A.B., Washington University, 1913; M.D., Stanford, 1917.

Reynolds, Lynn, Mechanical Engineering (Aerodynamics), (2)

Rooney, Henry Thomas, Medicine, (123) (Sutter 3654) 350 Post, SF-sf
M.D., Cooper Medical College, 1902. Resident Physician, Lane Hospital, 1902–06; Captain, U. S. A., 1918–19.

†Rosburg, August H., Surgery, (1234)) (Garfield 974)
722 23d ave., SF-sf
A.B., Iowa, 1909; M.D., Rush Medical College, 1912. Interne, Los Angeles County Hospital, 1912–13; Fellow at the Mayo Foundation, 1918 20.

Salomon, Edward, Surgery (Genito-Urinary), (123) (Sutter 3484)
560 Sutter, SF-sf
B.S., California, 1913; M.D., Stanford, 1916.

Schoonmaker, Guy D., Medicine (Gastro-Intestinal), (23)

Scott, Flora Murray, General Biology, (123) (PA 637R)
346 Harvard, Mayfield
B.S., St. Andrews University.

Seay, Claire Soulé (Mrs.), English, (23) (PA 1505J) 17 Alvarado
A.B., Stanford, 1905.

Selna, Adeline, Romanic Languages, (123) 301 Roble
A.B., Stanford, 1922.

Shepardson, Dwight Emerson, Medicine, (1234) (West 6193)
Lane Hospital, SF-sf
A.B., Stanford, 1917, M.D., 1921.

Silverman, A. George, Research Assistant, Food Research Institute, (123) 358 Addison
B.S., Harvard, 1921.

Smith, Jessie Edna, Romanic Languages, (123) (Redwood 285W)
Redwood City-rc
A.B., Stanford, 1916, A.M., 1917.

Specking, Inez, English, (12) (PA 1025) Madroño
A.B., Harris Teachers College, 1922.

Sponsler, Selden Ruger (Mrs.), Chemistry, (12) 2 Lasuen
B.A., Mt. Holyoke, 1907; A.M., Michigan, 1914.

†Spruyt, Frederick Johannes, General Biology, (123)
Amherst st., Mayfield
Student, Agricultural College, Juderiksoord, Holland, 1915; Sugas Chemistry College, Amsterdam, 1918.

†Stadtherr, Edward F., Neurology, (1234) (Douglas 6593)
345–349 Flood Bldg., SF-sf
M.D., St. Louis University. Past Assistant Surgeon, U. S. N., 1917–22.

Stark, Anna Vaal, Education, (23) (PA 571M) 500 Melville
A.B., Stanford, 1917.

Swett, Wilber Frank, Surgery (Eye Clinic), (123)
San Francisco Hospital, SF-sf
A.B., Stanford, 1917, M.D., 1922.

Taber, Louise Everett (Mrs.), Surgery (Skin Clinic), (12) (Fillmore 6996) 1940 Webster, SF-sf
A.B., California, 1914; M.D., Stanford, 1920.

Sheldon, Althea Morgan, English, (1) Madroño
A.B., Washington, 1903.

Smith, Francis Albert, Chemistry, (34) 600 Lincoln-p

†Shannon, George Pope, English (4) Redwood City, RFD 1-rc

Stewart, William Blair, Research Assistant, Food Research Institute, (4) 721 Waverley
A.B., Reed College, 1921.

Tainter, Maurice Lane, Pharmacology, (123)
Stanford Medical School, SF-sf
A.B., Stanford, 1921.

Talbott, Edward M., Surgery (Ophthalmology), (123) (Berkeley 9300) Hotel Claremont, Berkeley-b
M.D., Georgetown, 1901. Lieut. Colonel Medical Corps, U. S. A., retired.

†Taylor, Howard Rice, Education, (123) (PA 253) 18 Alvarado
A.B., Pacific University, 1914.

†Vickery, Frederick P., Geology, (4) Sargent-s

Voerge, Maurine Grace, Romanic Languages, (2) 304 Roble
A.B., Stanford, 1923.

Walton, Clarence Eldon, English, (23) 317 Union
A.B., Bates, 1920; A.M., Stanford, 1922.

Watters, Hallie (Mrs.), Classical Literature (Greek), (123) (PA 783M) 633 Channing-p
A.B., Stanford, 1922.

Wellman, Beth, Psychology (Commonwealth Fund), (3)

†Wells, Clinton Fisk, Economics, (1234) 141 Amherst, Mayfield-m
A.B., Stanford, 1920, A.M., 1920.

Whittier, Florence Oliver, Chemistry, (124) 15 Lasuen
A.B., Stanford, 1921.

Williams, Gwladys Louise, Romanic Languages, (1234) Madroño
A.B., California, 1921.

Woodbridge, Elizabeth Dana, Romanic Languages, (123) (PA 1477M) 7 Alvarado
A.B., Vassar, 1907; A.M., Stanford, 1918.

Wyman, Jennie Benson (Mrs.), Psychology, (123) 682 University-p
A.B., M.S., University of New Zealand; A.M., Stanford, 1921.

TECHNICAL ASSISTANTS

Anderson, Doris Evelyn, Bacteriology, (1234) (PA 1077) 3 Santa Ynez
A.B., Stanford, 1921.

†Banham, Frank D., Mechanician, Mechanician Shop, (1234) 525 Waverley-p

Barker, Chester Wing, Secretary, Encina Gymnasium, (34) 666 Kellogg-p

Barrett, Frank C., Anatomy, (1234) (PA 1094W) 359 Emerson-p

Bartlett, Emily, Anatomy, (1234) (Redwood 285W) Redwood City
A.B., Maine, 1912, A.M., 1917.

Bell, May Kirk (Mrs.), Secretary, Entomology, (1234) (PA 485W) 532 Homer

Berger, Alice R., Chemistry, (123) 73 N. 6th, San Jose
A.B., Stanford, 1908, A.M., 1913.

Blewett, Frances, Secretary to Dr. Davis, Food Research Institute, (1234) (PA 1580J) 528 Lincoln
A.B., Stanford, 1921.

†Borrow, Sidney W., Physics, (1234) 453 Webster-p

Boulware, Edna, Secretary, Chemistry, (1234) (PA 403J) 170 Bryant-p

†Broz, James J., Secretary, Encina Gymnasium, (12) San Carlos

†Bruce, Walter Johnson, Chemistry, (1234) (PA 342W) 415 Florence-p

Burk, Georgina M., Secretary, Roble Gymnasium, (1234) San Juan

Cannon, Violet (Mrs.), Librarian, Food Research Institute, (1) Ramona Apts.

Corbaley, Maizie, Clerical Assistant, Food Research Institute, (4)

Curtis, Wilmetta, Secretary, Physiology, (12) 453 Melville-p

†Denny, Wallace, Trainer, Encina Gymnasium, (1234) (PA 1673M) 110 Waverley-p

†Estes, Joseph V. T., Bacteriology, (12) 443 Hamilton-p

Evans, Susan Le Count (Mrs.), Librarian, Education, (123) (PA 1469W) 555 Waverley-p

Fast, Lisette Emery, Secretary, Citizenship, (4) 528 Lincoln

Ferris, Roxana Stinchfield (Mrs.), Botany, (1234) (PA 1145M) 667 Melville

A.B., Stanford, 1915.

Fries, Gilbert, Mechanical Engineering, (1234)

Gonzales, Steve Leroy, Bacteriology, (34)

Greene, Helen Hartley, Secretary, Physiology, (34) 15 Lasuen

A.B., Stanford, 1923.

Hill, Clara E. (Mrs.), Secretary, Physics, (123) 250 Middlefield-p

Huskey, Anne K. (Mrs.), Secretary. Civil Engineering, (1234) (PA 653W) 1376 Emerson

Ignacio, Frank, Museum, (1234) Museum

Jones, Josephine W. (Mrs.), Secretary, History, (4)

Krause, Gus D., Mining and Metallurgy, (1234) (PA 1330) 330 Ramona-p

†Lemos, Frank B., Museum, (1234) 835 Webster-p

†Lemos, John T., Art Gallery, (1234) (PA 628W) 261 Homer

McDermoth, Nan A. (Mrs.), Secretary, Publicity, (123) (PA 1129R 790 Palo Alto-p

†McInnis, Peter, Custodian, Encina Gymnasium, (1234) (PA 529R) 201 Stanford, Mayfield-m

McKendry, Marion, Secretary, Law, (1234) Kingscote

Marx, Alberta, Bacteriology, (1234) (PA 255) 357 Kingsley-p

A.B., Stanford, 1921.

†Moffitt, George W., Military Training, (1234) (PA 239M) 159 Palo Alto, Mayfield-m

Murray, Katherine, Secretary, Psychology, (123) (PA 1219J) 1011 Fulton-p

Oldroyd, Ida S. (Mrs.), Curator, Geology, (1234) (PA 198)
10 Alvarado

†Oldroyd, Thomas S., Assistant Curator, Geology, (1234) (PA 198)
10 Alvarado

Price, Marjorie Bryant (Mrs.), Secretary, Economics, (1234)
(PA 1279M) 840 Hamilton-p
A.B., Stanford, 1921.

Purviance, Patti S. (Mrs.), Secretary, Geology, (1234) (PA 1159)
545 Forest-p

†Pyle, M. M., Assistant Mechanician, Mechanician Shop, (1234)
235 Amherst-m

†Scott, Thomas Benjamin, Storekeeper, Chemistry, (1234) Mayfield-m

Seaman, Olive P. (Mrs.), Secretary, Military Training, (123)
(PA 1042W) 25 Salvatierra

Stuart, Burton, Physics, (1234) Mayfield-m

Swabey, Laura C., Librarian, Food Research Institute, (234)
1055 Cowper-p

Tanner, Hilda V. (Mrs.), Secretary, Mining, (1234) (PA 413)
1111 High

Tyler, Rose T. (Mrs.), Secretary, History, (1)
140 E. Julian, San Jose-sj

†Uhlman, Walter, Engineering, Mechanical Engineering, (1234)
305 Emerson-p

Williams, Josephine, Secretary, History, (23) Madroño

Zandmer, Solis Myron, Mining and Metallurgy, (1) 427 Encina
A.B., Stanford, 1921, Engineer, 1923.

ASSISTANTS IN ADMINISTRATION

OFFICE OF THE PRESIDENT

Church, Vivienne, Secretary to Dean of Men, (34) (PA 1466J)
262 Hawthorne-p

Curry, Elizabeth, Appointment Secretary's Office, (1234) (PA 1427)
1146 Waverley-p

Davies, Gertrude H. (Mrs.), Departmental Secretary, (1234))
Runnymede-R 1, Box 42, p
A.B., Stanford, 1913.

Drachman, Rosemary, Secretary to Dean of Women, (1234)
19 Salvatierra
A.B., Stanford, 1922.

Owen, Lillian Caroline, Executive Assistant, Appointment Secretary's
Office, (1234) (PA 1270M) Kingscote
A.B., Stanford, 1920.

Power, Mildred (Mrs.), Appointment Secretary's Office, (1234) (783M) 633 Channing-p

Ramsey, Agnes Craig (Mrs.), Mimeographer, (1234) 20 Lasuen

Sterling, Marie Louise, Secretary to Dean of Men, (12) (PA 1033) 12 Lasuen

Terry, Sylvia (Mrs.), Appointment Secretary's Office, (1234) 1850 Bryant-p

Trist, Marian Abigail, Secretary to Alumni Secretary, (1234) 375 Everett-p

OFFICE OF THE REGISTRAR

Bentley, Ruth Mary, (1234) (PA 695) 635 Homer-p

Brand, Elizabeth Morgan, (123) (PA 1270J) Kingscote

Fordyce, Elizabeth, Lower Division Secretary, (1234) Kingscote
B.S., Mills, 1916.

Huston, Margaret (Mrs.), Secretary to Scholarship Committee, (1234) (PA 644) 21 Salvatierra
Ph.B., University of Chicago, 1903.

Lissman, Marcel A., (4) 106 Encina

Nagel, Laura I., (1234) (LA 126J) Los Altos-la
A.B., Stanford, 1904, A.M., 1905.

Park, Lucy Mary, Lower Division, (2) (PA 1554R) 370 Channing
A.B., Cornell, 1915.

Peterson, Blanche P., (1234) 420 Oregon-p

Puhara, Alice Holmes (Mrs.), (1) College Terrace

Remele, Miriam Frances, (1234) (PA 711J) 367 Addison-p

Rowland, Mary De, Lower Division, (34) (PA 991J) 4 Lasuen

LIBRARY

Alderton, Barbara, Cataloguer, (1234) (PA 973J) 915 Channing-p
A.B., Stanford, 1916.

Alekian, Alexander E., Loan Desk, (4) 50 Encina

Beach, Susan E., Loan Desk, (4) (PA 1172R) 540 University-p

Binkley, Robert Cedric, Reference Librarian, Hoover War Library, (34) 84 Sequoia
A.B., Stanford, 1922.

Craig, Florence M., Cataloguer, (1234) Redwood City-rc

Davis, Amelia Washburn, Cataloguer, (1) 3 Lasuen

Davis, Herbert Adlington, Law Librarian, (12) 207 Union
A.B., Stanford, 1921.

Davis, Ruth May, Order Division, (1234) (PA 1259W) Mayfield

Duff, Margaret Helen, Loan Desk, (34) (PA 1077) 3 Santa Ynez

Evans, Lucy M., Order Division, (1234) 527 Hamilton-p

Fairclough, Katrine Rushton, Assistant, (234) (PA 1028W) 6 Cabrillo
A.B., Stanford, 1914.

Gale, Helen Avery, Serial Division, (1234) (PA 1205W) 940 Waverley-p
A.B., Stanford, 1909.

Hitchcock, Jeanette McGrory, Cataloguer, (234)
A.B., Stanford, 1915.

Kingrey, Waive Lotha, Loan Desk, (4) (PA 1077) 15 Lasuen
A.B., Stanford, 1923.

Knipmeyer, Gilbert, Loan Desk, (12) 1001 Ramona-p

Lambert, Violet E., Reference Division, (1234) (PA 408R) 554 Hawthorne-p

Lantzeff, George V., Loan Desk, (1234) 1431 Waverley-p
A.B., University of Petrograd, 1918.

Meers, Edith, Reference Division, (1234) (PA 923W) 1710 Waverley-p

Miller, S. Kathryn, Loan Desk, (4) (PA 1059) 10 Salvatierra

Nelson, Ina F., Cataloguer, (1) 1 Salvatierra

Owens, William, Loan Desk, (1234) (PA 165) 527 Waverley-p

Potter, Margaret, Cataloguer, Lane Medical, (1234) 415 Bellevue, Oakland-o

Ramsey, Anna Frances, Reference Division, (1234) (PA 1021J) 20 Lasuen
A.B., Stanford, 1922.

Richards, Ruth, Secretary to the Librarian, (1234) (PA 1025) 1 Salvatierra
A.B., Radcliffe, 1906; B.S., Simmons, 1908.

Scibird, Ruth, Reference Division, (1234) (PA 1016) 21 Cabrillo

Secker, Georgia Pearl, Cataloguer, (123) (PA 611M) 545 Bryant-p
A.B., Stanford, 1918.

Sheldon, Frances Elizabeth, Law Librarian, (34) 3 Santa Ynez
A.B., Stanford, 1922.

Stillson, Grace Elizabeth, Cataloguer, (1234) (PA 543W) 451 Ruthven-p
A.B., Stanford, 1915.

Thompson, Georgia, Loan Desk, (123) (PA 1059) 10 Salvatierra
A.B., Stanford, 1922.

Tum Suden, Linda, Lane Medical, (1234) (Fillmore 1781) 3008 Clay, SF-sf

Walton, Clarence Eldon, Loan Desk, (1234) (PA 1680) 317 Union
A.B., Bates, 1920; A.M., Stanford, 1920.

Wickes, Florence L., Cataloguer, Lane Medical, (1234) 519 Webster, SF-sf

Zschokke, Elsbeth E., Loan Desk, (4) (PA 1394J) 526 Forest-p

OFFICE OF THE COMPTROLLER

Accounting Department

(†Erwin, Ernest S., Accountant.)

Barker, Nettie Hindry (Mrs.), Stenographer, (1234) (PA 361J) 633 Hamilton-p

A.B., Stanford, 1897, A.M., 1898.

Belanger, Joseph, Private Exchange Operator, (34) 62 Encina

Cooley, Ruth S. (Mrs.), Clerk, (123) (PA 637R) 346 Howard, Mayfield

Ensign, Eleanor, Bookkeeper, (34) (PA 1143R) 628 Gilman-p

†Fisher, E. T., Head Bookkeeper, (12) 312 The Crescent, San Mateo

Hill, Beatrice, Clerk, (4) (PA 1471) Roble

Irvin, D. W., Head Bookkeeper, (34) 319 Ramona-p

Matheson, Margaret M., Cashier, (1) 618 Channing-p

Meyrick, Geraldine, Secretary to Accountant, (1234) (PA 622R) 356 Addison-p

†Rathman, G. A., Bookkeeper, (1234) 211 Stanford, Mayfield

Ross, Chester, Bookkeeper, (1234) Stanford University

Smith, Gladys B. (Mrs.), Cashier, (1234) (PA 245J) Stanford University

Smith, Pearl M. (Mrs.), Private Exchange Operator, (12) (PA 1014) 15 Lasuen

A.B., Wisconsin, 1914, A.M., 1916.

†Stone, Chas. F., Cost Clerk, (1234) 367 Everett-p

Taff, Marvel B. (Mrs.), Private Exchange Operator, (1234) (PA 792) 435 Forest-p

†Thomas, Donald R., Bookkeeper, Stanford Union, (12) (PA 461W) 656 Bryant-p

White, Alma B., Clerk, (1234) (Burl. 224L2) 1400 Howard, Burlingame-b

Wright, H. Katherine (Mrs.), Cashier, Stanford Union, (2) (PA 1144) 24 Alvarado

Stanford University Hospital, San Francisco

Olney, V. N., Head Bookkeeper, (1234) (West 8429) 367 Ivy, SF-sf

Carol, Ruth, Clerk, (1234) (Fillmore 4964) 2309 Sacramento, SF-sf

†Erickson, Einar H., Bookkeeper, (1234) (Pacific 8166) 447 22d ave., SF-sf

Griffin, H. E., Night Clerk, (1234) (West 6350) 1936 Post, SF-sf
Irvine, Jessie M., (4) (Franklin 5463) 1225 Hyde, SF-sf
Lee, L. V., Pay Roll Clerk, (1234) (Sunset 4085) 1521 20th ave., SF-sf
Leik, Anna Julia, Cashier, (12) (Franklin 3018) 1538 Clay, SF-sf
Lumsden, Juanita, Clerk, (34)
Lutley, Edythe L., Bookkeeper, (123) (Market 1920) 1747 Cole, SF-sf

Corporation Yard

(Keefer, Chauncey Tennent, University Engineer.)
†Allen, Everett A., Foreman Plumber, (1234) (MP 954) Stanford Park
Collins, Ralph, Foreman Garage, (234) Menlo Park
†Hackenburger, William, Clerk Yard Office, (1234) (PA 519J) Stanford Univ.
Lamb, Edward, Fire Marshal, (1234) (PA 1666)
†McDonnell, J. W., Foreman Electrician, (1234) 618 Fulton
†Nyquist, I. A., Foreman of Grounds, (1234) (PA 519W) Stanford Univ.
†Schilling, John C., Foreman Carpenter, (1234) 1042 Cowper
†Smith, George B., Foreman Painter, (1234) 253 Homer-p
†Waterman, Edward H., Chief Engineer, Power House, (1234) 567 Lytton-p

Dormitories

David, Leon T., Custodian Stanford Union, (1234) 228 Union
Gardiner, Gertrude, Matron, Roble Hall, (1234) Roble
Henderson, James Ralph, Custodian, Encina and Sequoia Halls, (1234) 3 Sequoia

Foreman Outside Properties

Frehe, Fred W., (1234) Stanford Univ.

Purchasing Department

Widman, Fred., Purchasing Agent and Storekeeper, (1234) Stanford Univ.
Price, Verona, Secretary to Purchasing Agent, (1234) (PA 459R) 602 Webster-p
A.B., Stanford, 1918.

Purchasing Department, Stanford University Hospitals

†Slack, Ellard L., Purchasing Agent and Storekeeper, (1234) Burlingame-b
Hanley, Rose L., Stenographer, (1234) (Pacific 7570) 2502 McAllister, SF-sf

Suter, Henrietta, Assistant Storekeeper, (1234) (Pacific 7134) 621 11th ave., SF-sf

Thompson, H. Katherine, Cashier, Stanford Union, (1) 24 Alvarado

University Press

(†Friend, Will A., Superintendent.)

†Barnes, A. C., Foreman Composing Room, (34) 221 Channing-p

†Bignold, Walter C., Foreman Composing Room, (12) 231 Emerson-p

Black, M. Ruth, Clerk, (34) (PA 1552) 365 Channing-p

†Borsdamm, John, Foreman Bindery, (1234) 412 Everett-p

Church, Vivienne, Clerk, (12) (PA 1466J) 262 Hawthorne-p

†Davis, Robert H., Editor, (1234) (PA 705J) 704 Bryant-p

Graham, Claribel, Proofreader, (12) (LA 168W) Mountain View-mv

†Smith, C. B., Foreman Pressroom, (1234) (PA 620) 325 Alma-p

OFFICE OF THE TREASURER

†Blodgett, David P., Chief Clerk, (1234) 556 Vernon, Oakland-o

Rose, Jessie E., Stenographer, (1234) 2015 8th st., Berkeley-b

BOARD OF ATHLETIC CONTROL

†Millar, A. E., Accountant, (1234) 250 Park, Mayfield

STANFORD UNION

Handy, Etta H., Director, (1234) (PA 1477J) 7 Alvarado
A.B., Washington State, 1921.

Ricker, Christine, Assistant Director, (1234) (PA 876) 19 Salvatierra
B.S., Simmons, 1917.

Thomas, Donald R., Bookkeeper, (34) (PA 1680, PA 461W) 656 Bryant-p

Wright, H. Katherine (Mrs.), Cashier, (34) (PA 1680) 1752 Emerson-p

ORGANIZATION

Foundation

STANFORD UNIVERSITY was established under an Act of the California Legislature, approved March 9, 1885. The Founding Grant, executed November 11, 1885, was made public at a meeting of the Board of Trustees, held in San Francisco, November 14, 1885. The cornerstone of the inner quadrangle was laid May 14, 1887, and the institution opened to students October 1, 1891.

Nature, Object, and Purpose of the University

"We, Leland Stanford and Lane Lathrop Stanford, husband and wife, grantors, desiring to promote the public welfare by founding, endowing, and having maintained upon our estate known as the Palo Alto Farm, and situated in the Counties of San Mateo and Santa Clara, State of California, United States of America, a university for both sexes, with the colleges, schools, seminaries of learning, mechanical institutes, museums, galleries of art, and all other things necessary and appropriate to a university of high degree, to that end, and for that purpose, do hereby grant," etc.

"And that the trust hereby created may be executed according to the wishes of the grantors and each of them, they do hereby designate the Nature, Object, and Purposes of the Institution hereby founded, to be: Its nature, that of a University, with such seminaries of learning as shall make it of the highest grade, including mechanical institutes, museums, galleries of art, laboratories, and conservatories, together with all things necessary for the study of agriculture in all its branches, and for mechanical training, and the studies and exercises directed to the cultivation and enlargement of the mind; Its object, to qualify students for personal success and direct usefulness in life; Its purpose, to promote the public welfare by exercising an influence in behalf of humanity and civilization, teaching the blessings of liberty regulated by law, and inculcating love and reverence for the great principles of government as derived from the inalienable rights of man to life, liberty, and the pursuit of happiness."

Name of the University

"Since the idea of establishing an institution of this kind for the benefit of mankind came directly and largely from our son and only child, Leland, and in the belief that had he been spared to advise as to the

disposition of our estate, he would have desired the devotion of a large portion thereof to this purpose, we will that for all time to come the institution hereby founded shall bear his name, and shall be known as The Leland Stanford Junior University."

Management and Control of the University

The general management and control of the institution is vested in a Board of Trustees originally numbering twenty-four, and chosen for life. By the Amending Act of May 31, 1899, the number of trustees was reduced to fifteen, with future elections for a term of ten years. The Board of Trustees fills all vacancies.

Powers and Duties of the Trustees

"The Trustees shall have power and it shall be their duty:

"To appoint a President of the University, who shall not be one of their number, and to remove him at will.

"To fix the salaries of the President, Professors, and Teachers, and to fix them at such rates as will secure to the University the services of men of the very highest attainments.

"To establish and maintain at such University an educational system which will, if followed, fit the graduate for some useful pursuit, and to this end to cause the pupils, as early as may be, to declare the particular calling which in life they may desire to pursue. . . .

"To prohibit sectarian instruction, but to have taught in the University the immortality of the soul, the existence of an all-wise and benevolent Creator, and that obedience to His laws is the highest duty of man.

"To have taught in the University the right and advantages of association and coöperation.

"To afford equal facilities and give equal advantages in the University to both sexes.

"The Board of Trustees shall annually report all their proceedings to the person who for the time being shall fill the office of Governor of the State of California, and shall accompany such report with a full account of their financial operation for the preceding year, and with a statement of the financial affairs of the institution."

Powers and Duties of the President

"It shall be the duty of the Trustees to give to the President of the University the following powers:

"To prescribe the duties of the professors and teachers; to remove professors and teachers at will; to prescribe and enforce the course of study and the mode and manner of teaching; such other powers as will

enable him to control the educational part of the University to such an extent that he may justly be held responsible for the course of study therein and for the good conduct and capacity of the professors and teachers."

Amendments to the Founding Grant

A clause in the Founding Grant reserved to the grantors the right to alter, amend, or modify the terms and conditions of the grant in important particulars. Under this provision amendments were made by Mrs. Stanford under date of June 1, 1897, May 31, 1899, March 28, 1902, October 3, 1902, and June 1, 1903. These amendments were concerned mainly with matters of detail, but provided also "that the number of women attending the University as students shall at no time ever exceed five hundred."

An amendment to the Constitution of the State of California, adopted November 6, 1900, "permitted, approved, and confirmed all the trusts, estates, terms, and conditions" of the Founding Grant and of all the deeds, conveyances, and other instruments made and delivered before that date, and authorized the Legislature, under certain conditions, to exempt the property of the University from taxation. Article 13 of the State Constitution, as amended November 3, 1914, exempts from taxation the buildings, grounds (not exceeding one hundred acres), equipment, securities, and income, used exclusively for educational purposes, of any educational institution of collegiate grade not conducted for profit.

The University Faculty

"The trustees shall constitute the president and professors the faculty of the University, and shall prescribe their powers and duties as such."

Under the Articles of Organization, adopted by the Board of Trustees March 31, 1904, the power and authority of the University Faculty is vested in the Academic Council, consisting of the president of the University, the professors and associate professors, the librarian, the registrar, the academic secretary, such assistant professors as have been upon the roll of the faculty for three years, whether as assistant professors or instructors, and such other officers of the University or members of the teaching staff as the Academic Council may, with the assent of the Board of Trustees, determine.

All general University regulations, statutes, and rules as to matters within the province of the faculty, must be initiated in and passed by the Academic Council. The Academic Council has general power and responsibility for the internal administration of the University, subject to express provisions contained in the Articles of Organization respecting

the methods of exercising such powers through the President of the University, the Advisory Board, the Standing Committees, and the Department Faculties.

The Advisory Board consists of nine members of the rank of professor, one from each of the five department groups, and four chosen without reference to groups. All executive acts of general importance, such as recommendations for appointments, promotions, and dismissals, for the creation of new departments or chairs, etc., must be submitted by the President to the Advisory Board. The Advisory Board is also privileged to make such recommendations to the President, regarding policy, as it may decide by vote to be expedient, but no recommendations for appointments, promotions, or dismissals may originate with the Advisory Board.

The Executive Committee of the Academic Council consists of the president, vice-president, registrar, academic secretary, and two members from each department group elected by the Academic Council. The Executive Committee appoints the Standing Academic Committees of the Council, with the exception of the Graduate Study Committee, which is elected by the Council.

The Standing Administrative Committees of the Council are appointed by the President.

The Department Faculties consist of the professors, associate professors, assistant professors, and instructors in the several departments, but only members of the Academic Council have the right to vote. A Department Faculty has direction of the work of instruction in the department and of the internal administration of the department, subject only to such control as is vested in the Board of Trustees, the President of the University, and the Academic Council. The executive head of the Department Faculty is designated annually by the President with the approval of the Advisory Board and of the Board of Trustees.

Departments

The work of the University embraces the following departments, divided into groups for the purpose of elections to the Advisory Board and Executive Committee, as indicated:

(I) Classical Literature, English, Germanic Languages, Romanic Languages; (II) Anatomy, Bacteriology and Experimental Pathology, Botany, Medicine, Physiology, Zoology; (III) Chemistry, Geology, Mathematics, Physics, Psychology; (IV) Economics, Education, History, Law, Philosophy, Political Science; (V) Applied Mathematics, Civil Engineering, Electrical Engineering, Mechanical Engineering, Mining and Metallurgy.

The Hopkins Marine Station, located at Pacific Grove, on the Bay of Monterey, is a branch of the biological work of the University.

The Food Research Institute was organized in 1921 under grant from the Carnegie Corporation for the purpose of studying the production, distribution, and consumption of food. The Board of Directors consists of Dr. Carl Lucas Alsberg, Dr. Joseph Stancliffe Davis, and Dr. Alonzo Englebert Taylor. The advisory committee comprises Mr. Herbert Hoover, Dr. John C. Merriam, Mr. Julius Barnes, Mr. A. R. Howard, Dr. William M. Jardine, Mr. George C. Roeding, Dean Sarah L. Arnold, the President of the Carnegie Corporation, and the President of Stanford University.

The University Year

The University year begins the first of October and is continuous throughout four quarters of approximately eleven weeks each. Any three quarters constitute an academic year. The summer quarter differs from other quarters only as the courses of study in the various departments may be contracted, or expanded, or specialized to meet the needs of a particular constituency; or, as in Physiology and Zoology, where the summer program is transferred to the Hopkins Marine Station at Pacific Grove. The emphasis of the summer quarter is placed on advanced and graduate work.

Location

The seat of the University, except for the advanced and clinical work in Medicine, is at Stanford University, in the Santa Clara Valley, thirty miles southeast of San Francisco, on the Coast Division of the Southern Pacific Railway. The campus contains about fifteen hundred acres, and is part of the University Trust of over seven thousand acres, partly level and partly rising into the foothills of the Santa Cruz Range. The Bay of San Francisco is about three miles east of the University grounds. Across the bay the Mount Diablo Range rises to a height of over four thousand feet, the Lick Observatory crowning Mount Hamilton, the highest of the range. The Santa Clara Valley is one of the most attractive portions of the State in fertility, in natural beauty, and in the excellence of its climate. In winter the mercury rarely falls below 30 degrees, with an average midday temperature of about 55 degrees. In summer the midday temperature ranges between 60 degrees and 80 degrees, with occasional higher and lower numbers, the average being about 70 degrees; the nights are cool, the usual range being from 50 degrees to 58 degrees. The rainfall, normally about eighteen inches, is chiefly confined to the months from December to April, inclusive.

Buildings

The architectural design of Stanford University, with the detailed plan of the inner quadrangle group, Encina Hall, and the first three engineering buildings, was the work of Mr. Charles Allerton Coolidge, of the firm of Shepley, Rutan, and Coolidge, Boston, Massachusetts. Later architects have followed the original plan, with modifications, but preserving its distinctive features.

The central group of buildings, constituting two quadrangles, the one surrounding the other, is an adaptation of the Mission Architecture, and reproduces on an imposing scale the open arches, long colonnades, and red-tile roofing of the old Spanish Missions of California. The Inner Quadrangle consists of twelve one-story buildings and the Memorial Church, connected by a continuous open arcade, and surrounding a court 586 feet long by 246 feet wide, or three and a quarter acres. The buildings are buff sandstone, somewhat varied in color, the stonework of broken ashlar, with rough rock-face, and the roofs covered with red tile.

The fourteen buildings of the Outer Quadrangle are constructed of the same material and in the same general style as the Inner Quadrangle, with open arcades on the outside. The extreme length of the Outer Quadrangle is 894 feet.

The Leland Stanford Junior Museum is situated a quarter of a mile from the Quadrangles, on the west side of the Palo Alto avenue.

The Chemistry Building, located between the Quadrangles and the Museum, consists of two separate structures—the main building and the Physical Chemistry Laboratory.

South of the central quadrangles are located the workshops of the Engineering departments, experimental laboratories, etc.

Encina Hall, situated east of the Quadrangles, and Sequoia Hall, west of the Quadrangles, are dormitories for men; the former will accommodate four hundred and fifty students, the latter, one hundred. Roble Hall, situated southwest of the Quadrangles, near Lagunita, is the dormitory for women and will accommodate two hundred and twenty-six students. The extension of the Stanford Union, completed in 1922, has dormitory accommodations for one hundred men. Two new dormitories for men, called Toyon Hall and Branner Hall, are under construction and will be completed in 1923.

Encina Gymnasium, for men, is a brick building with a frontage of 330 feet, situated north of Encina Hall and near the athletic grounds. There are two main divisions separated by a small court. The drill hall is 120 by 65 feet, with hard maple floor. There are rooms for special

exercises, shower and locker rooms in each wing, ample offices, and space for storage and laundry. An outdoor swimming pool 100 by 40 feet, is available to all undergraduate men, and to graduate men upon payment of the prescribed gymnasium fees.

The Basketball Pavilion, completed in 1922, affords ample quarters for indoor games, with a gallery seating capacity of two thousand.

The Stadium, completed in 1921, is a bowl-shaped structure built on an earth embankment, and has a seating capacity of 60,000. The field includes a quarter-mile track and 220-yard straightaway.

Roble Gymnasium, for women, is a frame building equipped with apparatus for physical education. An outdoor swimming pool, 75 by 40 feet, is located near the gymnasium. In connection with the pool there are eighteen shower rooms, seventy-two dressing rooms, a laundry and sterilizing plant to care for the swimming suits, and a room for their drying.

The Thomas Welton Stanford Art Gallery, the first building of the second quadrangle group, contains four galleries designed for the exhibition of paintings and other works of art.

The Library Building is the central unit in the second quadrangle group. The ground floor provides a reading room for books set apart for collateral reading, a department of public documents, and administrative work rooms. On the main floor are the delivery hall, the reference and reading rooms, a browsing room, a periodical room, the card catalogue, and the administrative rooms; on the mezzanine and top floors, a large study room, and smaller rooms of varying sizes for seminary and special research work.

The grounds immediately about the University, constituting the campus proper, have been reserved in part for experimental and ornamental purposes, in part as residence sites for members of the faculty and others who may desire to live on the University campus.

The main buildings of the School of Medicine in San Francisco occupy four fifty-vara lots bounded by Clay, Sacramento, and Webster streets. They consist of the Clinical and Laboratory Building, including Lane Hall, and Lane Hospital, a modern building in brick and stone, with a capacity of one hundred and eighty beds, and the Stanford University Hospital, a concrete structure with a capacity of one hundred and thirty beds. The Lane Medical Library is situated on the corner of Sacramento and Webster streets, opposite the Clinical and Laboratory Building, and the Stanford School of Nursing on Clay street, opposite the Hospitals. The Library is a fire-proof structure of Colusa sandstone, three and a half stories high, with steel stacks accommodating 60,000 volumes.

The Hopkins Marine Station is located on Almeja Point, Pacific Grove. A concrete building 40 feet by 80 feet, three stories in height, provides the necessary laboratories, aquarium, storerooms, library, photographic dark rooms, etc.

Clubhouses

The Stanford Union, a clubhouse for men, projected by Herbert C. Hoover of the class of 1895, and built by contributions from students, alumni, faculty, trustees, and friends of the University, is in charge of a Board of Trustees made up of three faculty members, three alumni, and three undergraduates, together with the Comptroller, the Dean of Men, and the President of the Associated Students. An additional building, consisting of dining halls, and dormitory accommodations for one hundred men, was completed in 1922.

The Women's Clubhouse provides a social center for the women of the University, with meeting rooms for various University organizations.

The two Union buildings and the Women's Clubhouse are connected by means of cloistered arcades surrounding an attractive court half an acre in extent and diversified by trees, grass, and a variety of flowering shrubs and plants.

ADMISSION TO THE UNIVERSITY

CANDIDATES must be at least sixteen years of age. They must present satisfactory recommendations as to personal character and must offer approved credentials as indicated below. Application forms for candidates from other colleges and universities, and recommendation blanks for candidates from preparatory schools, may be obtained on application to the Registrar. For matriculation for a particular quarter it is important that applications and complete credentials be presented on or before the dates named below.

Minimum Requirements for Admission

FIRST-YEAR STANDING

The minimum requirements for first-year undergraduate standing are measured in terms of high school preparation, and imply the completion of a regular four years' high school course, or its equivalent, amounting to *fifteen* units (including at least two units in English). These requirements may be fulfilled without examination, or on examination, as provided below.

The only prescribed subject is English (2 units). Applicants will find it to their advantage to anticipate, in the high school, certain lower division requirements of the University and to offer the following as part of the fifteen units required:

Four units in English;

Three units in a foreign language (or *two* units in each of two foreign languages);

One unit in either Botany, or Physiology, or Zoology, or General Science;

One unit in either Physics or Chemistry;

One unit in American History (or in American History and Civics).

If looking toward engineering, *one* unit in plane geometry, *two* units in algebra, *one-half* unit in trigonometry, and *one* unit in mechanical drawing.

The maximum entrance credit which will be accepted in typewriting is *one* unit; in physical education or military training (or both combined), *one* unit. No unit values are attached to penmanship and spelling.

Without examination.—The minimum requirements for first-year undergraduate standing are fulfilled by candidates who have been duly

graduated from approved preparatory schools with recommending (certificate) grades in subjects aggregating fifteen units (including at least two units in English), provided they are recommended also on the basis of character and seriousness of purpose. In schools which do not distinguish between a passing and a recommending (certificate) standard no subject will be credited unless the grade be at least five per cent higher than the lowest passing grade. (The first part of a continued subject, even if below the recommending standard, may be credited provided the last part is of recommending grade and the average of the two parts is of recommending grade. Acceptance of credentials may also be made to depend upon the record of the last two years, provided all the units of the last two years are of recommending grade, with an average of from five to ten per cent higher than the recommending grade, and provided that not more than three of the units in the first two years are below recommending grade.)

Holders of New York Regents' Diplomas granted *with credit*, and candidates from foreign countries who present credentials equivalent to those named and whose command of written and spoken English shall be deemed adequate for purposes of college study, may also be placed in this category.

On examination.—The minimum requirements for first-year undergraduate standing are fulfilled by duly recommended candidates, whether or not graduates of approved preparatory schools, who have passed the examinations of the College Entrance Examination Board in subjects (including English) aggregating fifteen units. Partial fulfillment of requirements without examination (that is, graduation from approved schools and recommendation on grounds of fitness, but with less than fifteen units of recommending grade) may be supplemented by examination, through the College Entrance Examination Board, in the subjects necessary to make up the required fifteen units. If recommended on grounds of fitness and after the completion of a full preparatory course, candidates may take the comprehensive instead of the ordinary examinations of the Board (see p. 83). Question papers are prepared by the College Entrance Examination Board in a limited number of subjects only. Subjects not on the Board's list may be offered for entrance only upon graduation and recommendation from approved schools as provided above.

ADVANCED STANDING

The minimum requirements for advanced standing are fulfilled by candidates whose previous record has been thoroughly satisfactory and

who present credentials covering first-year requirements and the completion of one or more quarters of college work.

GRADUATE STANDING

The minimum requirements for graduate standing are fulfilled by graduates of colleges and universities of recognized standing whose credentials evidence ability and promise, and who expect to become candidates for advanced degrees, or for the high-school teacher's certificate, or who purpose to pursue regular advanced, professoinal, or research courses.

Admission of Men

There is no restriction upon the number of matriculants in graduate standing, nor in advanced standing where credentials cover full entrance requirements and 80 or more units of college work. Approved candidates in this group are assured of admission at the beginning of any quarter.

The number of matriculants in first-year undergraduate standing, and in advanced standing with less than 80 units of college work, is limited to 450 for the autumn quarter and 50 each for the two succeeding quarters. For the present no limit (below 450) is placed upon summer matriculants; but matriculation for the summer quarter does not necessarily insure registration for succeeding quarters, and if more than 50 summer matriculants re-register for the autumn quarter the number allotted to the autumn quarter will be correspondingly reduced.

The selection of candidates within the limited group will be made immediately after August 1st, December 20th, March 1st, and June 1st, respectively, for the next succeeding quarter. If the number of candidates fulfilling minimum requirements does not exceed the permitted number of matriculants all such candidates will be placed on the eligible list; if unfilled places remain, other candidates will be added to the list from time to time as approved credentials are received and as the Committee may determine. For such unfilled places (after the dates named) applications may also be considered from men of considerable maturity, twenty-one years of age or older, who do not fulfill the minimum requirements for undergraduate standing, but whose incomplete preparation has been supplemented by practical training and experience of distinct educative value. Such candidates if admitted are special students and not candidates for a degree except as noted on page 111.

In case the number of candidates fulfilling minimum requirements exceeds the permitted number of matriculants, a preferred list will be

made up immediately after the dates named, which will include (1) candidates who have passed the comprehensive examinations of the College Entrance Examination Board with an average grade of 75 in the four subjects (see p. 83); (2) sons of alumni of the University; (3) persons awarded regional scholarships prior to the dates named; (4) other candidates, sufficient to make up approximately the permitted number, selected on the basis of superior fitness, taking into account exceptional qualifications of any kind, including scholarship, force of character, qualities of leadership, influence exerted among schoolmates and associates, physical vigor, and the like. In this connection a certain number of places (for October, 1923, not to exceed twenty-five) are held open until after the September entrance examinations. Those who pass these examinations under the four-subject plan, or who make up deficiencies due to partial recommendation from approved schools, or who bring the number of units earned on examination up to fifteen, will be considered along with such other candidates as may already have been placed on the waiting list. Selection up to the permitted number will be made by the Committee on Admission.

Admission of Women

The Founding Grant of the University, as amended May 31, 1899, directs "that the number of women attending the University as students shall at no time ever exceed five hundred."

The same scholarship standards and requirements apply as in the case of men, but with special regulations regarding the selection of candidates, as provided below.

Under the 500-limit the number of places open to new women students for the October matriculation is approximately 140; 35 of these are provisionally assigned to approved candidates for graduate standing; 105 to approved candidates for undergraduate standing. Proportional assignments will be made for the winter and spring quarters. Under the 500-limit it is at present possible to receive less than one-fifth of the number fulfilling the minimum requirements. Selection will be made as follows:

The credentials of all candidates for undergraduate standing who have fulfilled the minimum requirements will be canvassed immediately after July 20th, November 15th, March 1st, and June 1st, respectively, for the next succeeding quarter, and a preferred list will be made up which will include (1) the ten candidates who have passed the comprehensive examinations of the College Entrance Examination Board (four-subject plan) with the highest average grades. (But should

more than ten candidates pass with an average grade of 75 or above, all such will be placed on the Preferred List.) Candidates fulfilling minimum requirements by presenting fifteen entrance units through either the ordinary or comprehensive examinations, will also be considered as in this competing group; (2) daughters of alumni of the University and of members of the academic staff; (3) other candidates sufficient to make up approximately the permitted number, selected on the basis of superior fitness, taking into account exceptional qualifications of any kind, including scholarship, force of character, qualities of leadership, influence exerted among schoolmates and associates, physical vigor, and the like.

The credentials of candidates for graduate standing will be canvassed immediately after August 1st, November 15th, March 1st, and June 1st, respectively. Selection, up to the assigned number, will be made on the basis of superior fitness.

Approximately thirty-five places assigned to new undergraduate women for the October matriculation will be filled on the basis of priority of application under the regulations in force before February 21, 1921, and until the applications received by that date are exhausted. No applications received later than February 21, 1921, will be considered for this list. Proportional assignments, on the basis of priority of application, will be made for the winter and spring quarters.

Women once admitted to the University will be allowed to continue without further application, so long as scholarship and conduct are satisfactory, and provided they present themselves for registration at the beginning of each quarter on the regularly appointed day (but special restrictions apply to registration for the summer quarter, and to summer matriculants desiring to re-register for succeeding quarters). Places will not be held for women students after the regular registration day, except by permission of the Committee on Registration granted in advance.

The regular lists for the summer quarter will be made up immediately after June 1st, but it is not expected that the number of women in attendance will reach the 500 limit, and all candidates who fulfill the minimum requirements are, for the present, assured of admission if present on the regular Registration Day. Matriculation for the summer quarter, however, does not insure registration for any succeeding quarter. Summer matriculants will be considered in the same category as other applicants, and will receive only the advantage which inheres in early application or superior credentials.

Entrance Units

An Entrance Unit represents a year's study in any subject in a secondary school, constituting approximately one quarter of a full year's work. In assigning credit values two laboratory, drawing, or practice periods, not requiring additional study or preparation, are regarded as the equivalent of one recitation period. The length of the school year is assumed to be from thirty-six to forty weeks.

Approved Preparatory Schools

Approved Preparatory Schools are schools maintaining full four-years' courses of high school work and accredited (1) by the New England College Entrance Certificate Board, by The North Central Association of Colleges and Secondary Schools, by the Association of Colleges and Secondary Schools of the Southern States, by colleges and universities of recognized standing, or (2) upon inspection undertaken or authorized by the University.

The University records of first-year students will be considered as additional evidence of the standing of preparatory schools and of their good faith and success in meeting the requirements of the University, and such evidence will be made use of in determining as to the continuance of accrediting relations.

Entrance Examinations

In June all examinations for admission are conducted by the College Entrance Examination Board. These examinations, beginning the third Monday of the month, are held simultaneously in all parts of the United States and in various foreign countries (in California, at Stanford, Berkeley, Los Angeles, and other places). Two separate sets of question papers are prepared by the Board, the first known as the *ordinary* examinations, the second as the *comprehensive* examinations. (See p. 83.)

In September, beginning the third Monday in the month, comprehensive examinations are held at the University only. The question papers are prepared by the College Entrance Examination Board, but the answer books are read and graded by the University. An intelligence test will be offered by the University in connection with the September examinations for those desiring to take it at this time. The September examinations may be taken either under the four-subject plan, or to supplement incomplete recommendation from approved schools, or toward the completion of the fifteen units ordinarily required of those entering on examination. The examination fee in September is $5 and must be paid in advance. Application, with satisfactory credentials,

must be presented not later than the second Monday of the month.

The application for examination in June must be addressed to the College Entrance Examination Board, 431 West 117th Street, New York, N. Y. It must be made upon a blank form to be obtained from the Secretary of the Board upon request.

If the application is received sufficiently early the examination fee will be $9 for candidates examined in the United States and Canada, and $20 for candidates examined outside of the United States and Canada. The fee, which must accompany the application, should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

The applications and fees of candidates who wish to be examined outside of the United States and Canada must reach the Secretary of the Board at least six weeks in advance of the first day of the examinations (that is, for 1923, on or before May 7, 1923).

The applications and fees of candidates who wish to be examined in the United States at points west of the Mississippi River, or in Canada, must be received at least four weeks in advance of the first day of the examinations (that is, for 1923, on or before May 21, 1923).

The applications and fees of candidates who wish to be examined in the United States at points east of or on the Mississippi River must be received at least three weeks in advance of the first day of the examinations (that is, for 1923, on or before May 28, 1923).

When the candidate has failed to obtain the required blank form of application for examination, the usual examination fee will be accepted if the fee arrive not later than the specified date accompanied by a memorandum containing the name and address of the candidate, the exact examination center selected, and a list of all the subjects in which he may have occasion to take the Board's examinations.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidates concerned, but only upon the payment of $9 in addition to the usual fee.

A list of the places at which examinations are to be held by the Board is published about March 1st of each year. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1st.

In these examinations the University has designated 60 as the lowest passing grade.

The examination questions set by the Board are published in yearly volumes by Ginn & Company, Boston.

A definition of Requirements in the various subjects in which examinations are held is given in Document No. 105, issued by the Board. (Price, 15 cents; address Secretary, College Entrance Examination Board, 431 West 117th Street, New York, N. Y.)

THE COMPREHENSIVE EXAMINATIONS

Applicants who present evidence that they have satisfactorily completed a full preparatory course (amounting to fifteen entrance units) may be given permission to take the comprehensive examinations, in place of the ordinary examinations covering fifteen entrance units.

The four subjects for the comprehensive examinations are to be determined as follows:

(1) English (three units);

(2) A foreign language, selected by the candidate (two, three, or four units);

(3) Either Mathematics, or Chemistry, or Physics, selected by the candidate (one, three, or more units);

(4) A fourth subject, selected by the candidate, from the subjects in which examinations are held.

These four examinations must be taken at one time. At least two examinations must cover more than two entrance units each. In each subject selected the examination must cover all the units offered by the candidate in fulfillment of the minimum requirements for admission.

Comprehensive examinations are offered in the following subjects only: Chemistry (one unit); English (three units); French (two, three, or four units); German (two, three, or four units); Greek (two or three units); History (Ancient, Medieval and Modern European, Modern European, English, American History and Civil Government—one or two divisions); Latin (two, three, or four units); Mathematics (three or more units); Physics (one unit); Spanish (two, three, or four units). If taken as an ordinary examination (not on the four-subject plan) mathematics may cover any one or more of the following divisions: elementary algebra, plane geometry, solid geometry, trigonometry, advanced algebra.

The examination schedule for September, 1923, is as follows:

Monday, September 17—English, 9 a. m.; French, 2 p. m.

Tuesday, September 18—Latin, 9 a. m.; History, 2 p. m.

Wednesday, September 19—Elementary Mathematics, 9 a. m.; German, Spanish, 2 p. m.

Thursday, September 20—Physics, Chemistry, 9 a. m.; Greek, Advanced Mathematics, 2 p. m.

The intelligence test will be given Tuesday, September 18, at 9 a. m.

Entrance Subjects

The standard of preparation is the four-years' high school course. The proper coördination of high school subjects for the individual pupil is regarded as primarily a problem for the secondary school; the University is prepared to recognize for entrance credit any subject having an established place in the secondary school curriculum, in which adequate instruction is given and which is pursued to satisfactory results.

All Lower Division students (except students coming from other institutions with satisfactory credit in a college composition course) will be required to satisfy the University standard in English Composition. This may be done by passing a special Matriculation Test given during matriculation week. The examination will test the candidate's practical knowledge of spelling, punctuation, and sentence structure, and his ability to think consecutively on a simple subject. The subjects which are set at the time of the examination will be drawn for the most part from the candidate's own experiences.

A student who does not pass will be required to register in English A at once (unless, by reason of numbers, such registration is postponed to a later quarter), and remain in the course until his work is of passing grade.

Definition of High School Subjects

The definition of high school subjects given by the College Entrance Examination Board (Document No. 105 issued by the Board) will serve as a standard, and also, for California schools, the outline prepared by the University of California. The following suggestions and explanations will indicate the attitude of the University in judging entrance credentials, but no attempt is made to enumerate all the subjects which may be properly included in the high school curriculum.

1. English.—The primary aim of instruction in English Composition in the secondary schools is clearness. Based upon grammatical correctness, which is the peculiar goal of elementary English Composition, this is the quality by which the Stanford matriculation test is rated. To attain these aims there should be a definite coöperation of the entire staff of the school.

The work in English Composition should be given at least two recitations a week throughout the entire high school course. The greater part of the student's time outside of class should be devoted to practice in writing, but it is recommended that some attention be also paid to instruction in the fundamental principles of formal rhetoric.

The work in English Literature should be given an average of at least three recitations a week throughout the four years of the preparatory course. It should be so conducted as to give the student not only an appreciative understanding of the books selected either for general or for more intensive study, but also a knowledge of their place in the history of English Literature, together with an ability to read aloud intelligently both prose and verse.

In the History of English Literature preparation should consist in a brief outline with a view to making clear the character and the tendencies of the more important literary epochs and associating the chief books and authors in their proper periods.

2. Mathematics.—The work in Mathematics is usually distributed as indicated by the following unit values: algebra (1 to 2), plane geometry (1), solid geometry (½), trigonometry (½). Additional work may be offered in algebra and plane analytical geometry. The solution of numerous original problems and exercises is assumed throughout the course.

3. The Sciences.—In Physics, Chemistry, Physiology, Botany, Zoology, Hygiene, and General Science a full year's work in each is expected, comprising, preferably, two recitation periods and three double laboratory periods per week. Accurate notes of the laboratory work should be kept. Any two of the biological sciences (Physiology, Botany, Zoology) may be combined into a continuous year's course. Astronomy may be offered as a half-unit course.

Students who receive entrance credit in Chemistry, and who wish to continue the subject in the University, will be admitted at once to laboratory course 4 and will be required to begin lecture course 1.

In Physiology the text-book work should be accompanied by experiment, dissection of animals and organs, and a certain amount of study of the tissues with the microscope.

In Botany the main thing is that the work shall be of a practical nature; the study mainly specimens and not books. A study of the growth and development of the forms selected is of the highest

importance, and should be made a prominent feature in the work. If possible, the pupil should be allowed the use of a compound microscope, but when this is not practicable, microscopic demonstrations by the instructor are indispensable.

In Hygiene the work should include adequate instruction in personal hygiene, the hygiene of occupation, and the relation of the citizen to the State in matters of sanitation and public health. Three periods per week of physical training and three periods in experimental laboratory work in Hygiene, and two recitations per week on Public Health, or an equivalent amount of work distributed over a longer period, will cover the requirements for one unit of credit.

4. History and Allied Subjects.—History should be offered in full unit courses covering respectively the following divisions: (*a*) Ancient, (*b*) Medieval and Modern, (*c*) English, (*d*) American. A full unit course in European History, which includes both continental Europe and the history of England, will be accepted. Civics may be offered as a part of American History, or as an additional half-unit course. (A two-years' course covering the first three subjects (*a*, *b*, *c*) will be accepted.) Biblical History and Literature and Economics may each be offered as a half-unit or a unit course.

In the History subjects, in addition to the text-book preparation, the following exercises are recommended: Supplementary reading, including the use of original material where possible, notes and digests of reading: abstracts or analyses of specified chapters, both of the text-book and supplementary reading; outlines of subjects, gathering material from all available sources; map drawing from printed data or comparison of existing maps, showing movements of exploration, migration or conquest, territorial changes, or social phenomena. Such work should be regarded as a means rather than the end of historical study, and in every instance should be adapted in character and amount to the stage of advancement of the class and of the individual pupil. As the pupil progresses in his study, more advanced work may well be required in the form of historical composition and of note taking in the class from talks by the teacher or reports of fellow pupils.

5–6. Spanish and French.—The elementary study of the languages, covering two years of daily recitations, should lay stress on the following points: (1) An accurate knowledge of the forms of the languages; (2) the elements of syntax; (3) the ability to turn easy English prose

into French or Spanish; (4) the ability to translate ordinary French or Spanish into idiomatic English; (5) the ability to pronounce French and Spanish correctly.

(Students who have had one year of French in the high school and present one unit of credit for entrance into the University may take course A2. Those who have had one year of Spanish in the high school and present one unit of credit for entrance may take course B2. Those who have had two years of French or Spanish in the high school, and present two units of credit for entrance, may take second-year work in the University.)

The intermediate requirements are intended to represent a third year of daily recitations. The specific demands are: (1) A thorough knowledge of modern French and Spanish syntax; (2) the ability to turn ordinary modern French and Spanish at sight into idiomatic English; (3) the ability to translate connected English prose of moderate difficulty into French or Spanish; (4) the ability to write French or Spanish from dictation; (5) some facility in speaking the languages.

(Students who have had three years of French in the high school, and present three units of credit for entrance into the University, will ordinarily take course A22. Courses A24 and A30 are also open to them. Students who have had three years of Spanish in the high school, and present three units of credit for entrance into the University, will ordinarily take course B22. Course B30 is also open to them.)

The advanced requirements will occupy a fourth year of daily recitations.

At the end of this course the student should be able: (1) To read at sight any standard author not earlier than the seventeenth century; (2) to write in French or Spanish a short essay on some simple subject connected with the works read; (3) to translate correctly a passage of modern English prose; (4) to carry on a simple conversation in French or Spanish; (5) to follow a lecture in French or Spanish.

The reading in the elementary course should cover from four hundred to six hundred duodecimo pages; in the intermediate course a similar amount should be read of prose and verse, a portion to be in the dramatic form; and in the advanced course the same quantity of prose and verse should be selected from standard authors not earlier than the seventeenth century, and these should be read with reference to their literary value.

The practice of writing compositions consisting in reproductions or paraphrases of the matter read should be begun in the intermediate course and followed by short themes along similar lines in the advanced course.

7. German.—Elementary German represents the work of two high school years with daily recitations. It should give the following preparation: The ability to read understandingly easy German prose and verse at sight; an accurate knowledge of the most important elements of grammar, embracing especially inflections, word-order, and the essentials of syntax, as also the ability to appreciate the force of prefixes and suffixes; the ability to express in correct German simple ideas concerning familiar things and to recognize German words and simple sentences when spoken. Careful attention should be given to pronunciation and accentuation.

The amount of work to be accomplished in the first year is approximately what is contained in a beginner's book such as Zinnecker's Deutsch für Anfänger, with some additional reading. The reading of the second year should be for the most part graded modern German from 200 to 300 pages. German should be the language of the class-room, instruction in conversation, composition, and grammar being based largely on the reading text.

Intermediate German represents a third year of daily recitations, designed to extend and strengthen the pupil's personal command of the language, and his knowledge of word formation and syntax. Here again the reading matter should be, in large measure, the center of the instruction, and some attention should be paid to literary appreciation.

Advanced German represents a fourth year of daily recitations. Besides rounding out the pupil's knowledge of grammar, and increasing his facility in speaking and writing, this course should make considerable addition to his passive vocabulary and develop his literary appreciation. It would be advisable to choose most of the reading from the works of recent or contemporary writers, but some work or works of Lessing, Goethe, and Schiller should be studied intensively, while others might be assigned for outside reading and report.

8. Latin.—The reading required in elementary and advanced Latin (4 units) without regard to the prescription of particular authors and works, is not less *in amount* than Caesar, Gallic War, I–IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Virgil,

Aeneid, I–VI. An equivalent amount of reading from authors other than those specified above may be substituted. The following are suggested: Caesar, Civil War; Eutropius; Nepos; Terence, Phormio; Cicero, Letters; Sallust; Virgil, Bucolics and Georgics; Ovid, Metamorphoses.

Exercises in translation at sight should begin in school with the first lessons in which Latin sentences of any length occur, and should continue throughout the course with sufficient frequency to insure correct methods of work on the part of the student. From the outset particular attention should be given to developing the ability to take in the meaning of each word—and so, gradually, of the whole sentence—as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded and from the form and position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the translating that the student has to do. No translation, however, should be a mechanical metaphrase. Nor should it be a mere loose paraphrase. The full meaning of the passage to be translated, gathered in the way described above, should finally be expressed in clear and natural English.

The school work in Latin should include much reading aloud, writing from dictation, and translation from the teachers' reading. Learning suitable passages by heart is also very useful, and should be practiced.

The work in composition should give the student a better understanding of the Latin he is reading at the time, if it is prose, and greater facility in reading. It is desirable, however, that there should be systematic and regular work in composition during the time in which poetry is read as well; for this work the prose authors already studied should be used as models.

9. Greek.—In Elementary Greek (2 units) the following requirements should be covered: Grammar, the inflections, and the essential points of syntax; Xenophon's Anabasis, Books I–IV, or an equivalent; prose composition. It is expected of every pupil that he be able to read Greek aloud without stumbling.

In Advanced Greek (1 unit): Homer, Iliad, Books I–III, or an equivalent; advanced prose composition. The pupil should have a good acquaintance with the forms and syntax of Homer, and be able to scan any given passage exactly and to read it rhythmically. In the writing

of Greek the pupil should have a year's training beyond that required in Elementary Greek.

10. Drawing and Applied Art.—In each of the drawing subjects (Freehand, Mechanical, and Architectural) a unit of credit represents daily double periods for a year or single periods for two years.

In Freehand Drawing approximately two-thirds of the time should be given to representation and one-third to decorative and constructive design. *Representation* should include: Object drawing, boxes, books, bowls, vegetables, machine parts, drawn in various positions with attention to persepctive facts in line and also to light and shade; plant forms, seed pods, shells, insects, animals, and simple landscape, drawn in line, in light and shade, and in color; composition, exercises in arrangement and adaptation of pictorial subjects into good composition, using both rhythmic line arrangement and harmonious color. The style of drawing should be direct, facile, and effective, adapted to the thing drawn, with refinement in its proper place and vigor in its proper place. The pupil should be equally familiar with the use of pencil and charcoal or brush. *Design* should include (1) Exercises in space filling, borders and all-over patterns with use of geometric and organic forms; (2) principles of constructive and decorative design applied to simple objects, as: in printing, a title-page or program; in textiles, a stencil or embroidery design for a curtain or table-scarf; in wood, working drawings for a chair, table, clock-case, book-rack, etc.; in metal, cabinet hardware and lighting fixtures, etc. Talks supplemented by photographs of the best paintings and architecture, and talks upon taste in home furnishing and appointments, with visits to worthy examples, should supplement the course with a view to developing an enlightened taste in art.

In Mechanical Drawing the pupil is expected to acquire neatness and accuracy in the use of drawing instruments. This course should include practice in line work, lettering, machine or architectural working drawings, and tracing. Recognition, commensurate with the length of course and the degree of proficiency attained in the use of instruments, will be given, however, to courses consisting of line work, lettering, and the construction of geometric figures.

11. Shopwork.—Two things are expected: First, a knowledge of the materials and tools used, and a thorough understanding of the principles involved in the operation performed; second, manual dexterity, as evidenced by neatness, accuracy, and dispatch in the execution of a given piece of work.

Woodworking (½ unit) demands the ability to recognize the common varieties of wood, and some knowledge of their physical properties, such as ease of working, strength, toughness, hardness, etc., is expected. The pupil should be familiar with the uses of the principal hand tools of carpentry and with care, be able to make the ordinary kinds of joints and splices, and be familiar with the operation of lathe, jig-, band-, and circular-saws, and planing machines.

Forge Work (½ unit) demands an elementary knowledge of the properties of wrought iron and steel, and of the proper heats at which to work them. The management of forge and fire and the nature and uses of all the ordinary blacksmithing tools should be known. The pupil should be able to execute all of the common forging processes, including the various forms of welds in iron and steel; he is also expected to understand hardening, tempering, and annealing.

Foundry Work (½ unit) demands a knowledge of the tools and processes used in the ordinary forms of green sand molding and core work. The pupil should have had experience in the operation of the cupola and know how to charge and operate it. He should have a knowledge of the properties of cast iron, and experience in pouring cast iron as well as in molding.

Machine Shop Work (½ to 1 unit) demands a knowledge of the tools and processes used in the working of iron, steel, and brass. The pupil should be able to execute all forms of vise-work, such as chipping, filing, scraping, fitting, and finishing. He should be familiar, through experience in operation, with the simpler forms of machine tools, such as the lathe, drilling machine, planer, shaper, and milling machine.

12–15. Agriculture, Horticulture, Domestic Science, Commercial Subjects, Music.—The outline prepared by the University of California is suggested; also, in Music, the definition given by the College Entrance Examination Board.

FEES, EXPENSES, AND AID FUNDS

Tuition and Incidental Fees

THE Tuition Fee for undergraduates in all departments (except Medicine) is $75 per quarter. (For undergraduates matriculating before October, 1921, the Tuition Fee, except in Medicine, is $40 per quarter.)

The Incidental Fee for undergraduates (except in Medicine) is $20 per quarter. Students paying this fee have the privileges of the gymnasia, athletic grounds, Guild, and Stanford Union or Women's Clubhouse, with membership in the Associated Students, without further quarterly fees. There is also a Pavilion fee of $1 per quarter assessed upon all undergraduates by the Associated Students.

The Tuition Fee for regular graduate students, except in the departments of law and medicine, is $50 per quarter. The Tuition Fee for graduate students in Law is $65 per quarter (for students registering in Law before October 1, 1921, $50 per quarter). The Guild Fee for graduate students is $2 per quarter. Graduate students may have the privileges of the gymnasia and athletic grounds ($5), Stanford Union or Women's Clubhouse ($1), with membership in the Associated Students ($2), upon paying the quarterly fees.

The Tuition Fee for all students (graduate and undergraduate) in the School of Medicine is $85 per quarter; the Hospital Fee is $2 per quarter. Medical students desiring membership in the Stanford Union, Women's Clubhouse, or Associated Students, or the use of the gymnasia and athletic grounds, will pay the usual fees designated for these purposes. A deposit to cover breakage or loss of apparatus and materials may be required in any department, such deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus. The total deposits for this purpose may vary from $10 to $20 per annum. (For graduate students registering in Medicine before October, 1921, the tuition fee is $50 per quarter and the incidental fee $13 per quarter (in San Francisco, $12). For undergraduates registering in Medicine before October, 1921, the tuition fee is $50 per quarter (the incidental fee $20 per quarter.)

Students who have paid the regular fees of the Medical School in full and wish to take additional work before graduation will pay for

this additional work such fees as are decided upon in conference with the Dean and the Executive Head of the department in which such courses are taken.

The General Fee at the Hopkins Marine Station (covering all charges) is $75 per quarter for undergraduates and $50 for graduates. (For students matriculating before October, 1921, this fee will be $40.)

In addition to the above fees, students in laboratory courses pay for the materials which they use, and in some courses small syllabus and other fees may be charged.

(Tuition and Incidental fees are ordinarily returnable, when duly claimed in writing within two months after the date of withdrawal from the University, as follows: two-thirds of the incidental fee and the whole of the tuition fee will be refunded when the student withdraws within two weeks after the date of registration; one-half of the incidental fee and two-thirds of the tuition fee when the student withdraws at a later time but within four weeks of the date of registration. Laboratory fees (except in Chemistry, where a different procedure is applicable) are likewise returnable when duly claimed in writing within two months after the date of withdrawal from the University, as follows: the whole amount will be refunded when the student withdraws within one week of the beginning of a quarter, and one-half the amount if the student withdraws before the middle of a quarter; but no fees will be refunded on account of withdrawal after the middle of a quarter, nor unless claimed in writing within two months after the date of withdrawal.)

A Diploma Fee of $5 is charged all persons receiving degrees from the University.

Cost of Living

There are three dormitories for men (Encina Hall, Sequoia Hall, and the Stanford Union) and one for women (Roble Hall). Two new dormitories for men, Toyon Hall and Branner Hall, are in process of construction, and will be completed in 1923.

Undergraduate men, not living with parents or guardians, are required to room in the dormitories during their first three quarters in the University. Rooms in the Union are available only for graduates, "holdovers," and seniors. Application for room assignments should be made to the Dean of Men several weeks in advance of the opening of the quarter, and should be accompanied by a deposit fee of $5. Men students not rooming in the dormitories may live only in places approved by the University (consult the Dean of Men). Rooms in the dormitories cost from $16.50 to $27 per quarter (average cost $18 per quarter),

payable at the beginning of each quarter. Students rooming in the dormitories are expected to supply their own linen and bedding for standard size single beds. Board may be obtained at the Stanford Union, Sequoia Hall, Encina Hall, and in various clubs, the cost ranging from $30 to $40 per month.

Undergraduate women, not living with parents or guardians, are required to reside in Roble Hall for three quarters. (Some modification of this requirement for the succeeding autumn quarter may be made for students entering in the winter and spring quarters.) Women students not residing in Roble Hall may live only in places approved by the University (consult the Dean of Women). Rooms in Roble Hall cost $30 per quarter and board $90 per quarter. Room rent is payable in advance for the quarter; board in advance for the quarter or in two installments ($45 each). Students rooming in the Hall furnish couch covers, bed linen, blankets, towels, bureau scarfs, rugs, and curtains. White curtains are uniform for the Hall and must be purchased of the Matron. (Students in the summer quarter may rent curtains for seventy-five cents for the quarter; a few rugs are also available for rent to summer quarter students.) Applications for rooms in Roble Hall should be made to the Dean of Women and must be accompanied by a deposit of $5. Rooms are assigned in order of application, and early application is advisable.

In Palo Alto and College Terrace, at an average distance of a mile and a quarter from the University, rooms and board (for men) can be obtained in private houses, at from $30 to $40 per month. There are usually coöperative clubs, in which the cost of board and room may be further reduced. Special commutation tickets are issued by the Southern Pacific Company, and students living in towns on the line of the railway, from San Francisco to San Jose, easily go to and from the University daily. There is also trolley connection with San Jose, Los Gatos, and intermediate towns.

The cost of living for students of Medicine in San Francisco is about the same as at Stanford University. There are numerous rooming and boarding houses near the medical buildings.

FIXED EXPENSES PER QUARTER

The following is an estimate of the expenses *per quarter*, for undergraduate men, *for the items named:*

	Medium	*High*
Tuition and Incidental Fees	$ 95.00	$ 95.00
Books, Syllabus Fees, etc.	15.00	30.00
Board	90.00	120.00
Room	18.00	45.00
Incidentals (other than clothing and railway fares)	35.00	50.00
Laundry and clothing	35.00	100.00
Total for the quarter	$288.00	$440.00

(For undergraduates matriculating before October, 1921, tuition and incidental fees are from $60 to $70 per quarter.) Laboraotry fees are additional. The cost of board is variable and the estimate given for men is conservative; a lower cost is possible in coöperative clubs. For women residing in Roble Hall room and board amount to $120 for the quarter. All undergraduates pay also the Pavilion assessment of $1 per quarter.

SELF-SUPPORT OF STUDENTS

A considerable number of students find it possible to earn the whole or part of their expenses while attending the University. Success depends upon the student himself. The University, through the Appointment Secretary's office, and in other ways, is able to help the student both in finding work and in making plans. It can not, however, assume the responsibility of supplying work for all applicants. The student who combines initiative with industry and reliability, and who is willing to adapt himself to circumstances, is the one who succeeds in this as in other undertakings. As a result of experience it is believed that no properly prepared student who is possessed of good health and who has no dependents need hesitate to undertake a university course because of lack of means; if he is sufficiently in earnest in his desire to "work his way through" opportunities will not be lacking.

Students who are contemplating earning their own expenses at the University should not register for a heavy course nor attempt to engage in more than one student activity, particularly during their first quarter at the University (self-supporting students whose scholarship is high are given preference in awarding scholarships). While working one's way is an education in itself, there are many valuable features of college life

that must be foregone if one is earning a living. Students who have the necessary means will do well to devote any energy not needed in their studies to various extra-curricular activities rather than to earning their expenses.

The student is not advised to enter the University without a reserve fund, to provide for immediate needs or unexpected contingencies. This fund ought ordinarily to amount to at least $200; it is preferable for new students to have a larger sum. The student needs time to get acquainted, to become adjusted to University methods and requirements, to systematize his University work, to learn about the various opportunities for earning money, and to discover how much time he can afford to devote to self-support, keeping in good health and still making study his main object. In general, the student should not undertake to earn a larger proportion of his expenses than is absolutely necessary; his working time is too valuable for this and should be devoted to his studies to the largest extent possbile. It is recommended that no new student plan to devote more than four hours a day to earning his expenses.

The most ready-to-hand means of earning one's board at the University, whether for men or women, is by waiting on table. From three to four hours per day will cover the time required, which comes when it is least missed. Such chances are to be found in the dormitories, in cafés and boarding houses, and in public and private eating clubs. Other forms of work, for the relatively unskilled, are gardening, house work, care of children, janitor service, special jobs in connection with gymnasium and athletic activities, manual labor in connection with laboratory sections, agencies for laundries and other businesses, etc. Positions requiring more or less preliminary training have to do with plain cooking, clerking, bookkeeping, stenography and typewriting, music for dances, newspaper reporting, printing, tutoring, the management of student enterprises, etc. For advanced students in the various departments there are opportunities to act as assistants in quiz sections, in the reading of examination papers, reports, etc. Laboratory assistants are usually students either in graduate or undergraduate standing, as are also some of the part-time assistants in the various administration offices. Other means of support are found in the scholarships and fellowships offered, and through the considerable loan funds now available. A limited number of opportunities during the short vacations, particularly at Christmas time, can be found in San Francisco and elsewhere, as special Post-Office clerks or salesmen in the larger stores.

New students who must begin earning as early as possible, will do well to be on hand a little in advance of the opening of the University

and to come equipped with bicycles and working clothes. They should promptly enroll with the Appointment Secretary, Room 170, in the Administration Building. Women should discuss their plans also with the Dean of Women.

Assistantships

Student-assistant positions in the various departments, held by either undergraduates or graduates, range in pay from $35 to $150 each per quarter, the average being about $75 per quarter. These do not include a considerable number of minor positions in laboratories or elsewhere where mere labor without skill or special knowledge is required, nor do they include those positions where the full time of the assistant is demanded.

Each department selects and recommends for appointment its own assistants. Requests for information as to pay and duties, and applications for appointment, should be addressed to the Executive Head of the department in which a position is sought.

Loan Funds

After the first quarter in the University, and in approved cases, students may defer payment of tuition fees by means of promissory notes. Applications should be made to the Dean of Men and the Dean of Women, respectively.

The following loan funds (with the exception of the Women's Student Loan Fund) are administered by the Committee on Scholarship. In general not more than one hundred dollars may be loaned to any one student, and provision is made for repayment not later than one year after date of graduation or withdrawal from the University. Applications should be filed with the Dean of Men.

Stanford Alumni Association Graduate Loan Fund.—Loans are restricted to candidates for advanced degrees, including the A.M., J.D., M.D., and Ph.D. degrees, preference being given to candidates for the Ph.D. degree. In making loans emphasis shall be placed upon character, scholarship, and intellectual promise, in addition to personal need. $245.

Stanford Alumni Association Undergraduate Loan Fund.—"For worthy undergraduates." $500.

Associated Students Undergraduate Loan Fund.—For the benefit of worthy undergraduates who are members of the Associated Students of Stanford University. $250.

William Burton Barber Loan Fund.—Established in 1914 by Mrs. Anna M. Barber, in memory of her son, William Burton Barber, '02,

"to provide for needy and worthy students." This fund, increased by over $5,000, from the estate of Mrs. Jeannette Taylor, is available for men and women of the senior class who have been registered in the University for at least one quarter. The amount at present available is $6,569.80.

Class of 1906 Loan Fund.—No restrictions except such as may be imposed by the Committee on Scholarship. $100.

Horace Davis Loan Fund.—Mr. Horace Davis, charter member of the Board of Trustees, provided in his will a fund of $10,000, the interest of which is to be used as a loan fund for students. The amount at present available for loans is $1,250.

Dean of Men's Loan Fund.—An emergency loan fund, administered by the Dean of Men upon approval of the President.

Harker Alumnae Association Loan Fund.—Established in 1917 by the Alumnae Association of Miss Harker's School, a large number of whose graduates have been Stanford students. There are no restrictions except that if a graduate of Miss Harker's School applies she shall be given preference, other qualifications being equal. $225.

Dr. Robert Patek Memorial Loan Fund.—Established in 1921 by Mrs. Sadie Dernham Patek (Stanford, '11) in memory of her husband, Dr. Robert Patek. This fund, principal and interest, is to be loaned to medical students to assist them in completing their medical course. A student who has once received a loan from the Fund is entitled to continue to get additional loans until his graduation. The loans granted to students are to bear no interest for six years, and then to have an interest rate of six per cent until paid. Applications for loans are to be made through the President's Office.

John M. Switzer Student Loan Fund.—Mr. John M. Switzer (ex-'98) has presented to the Student Guild the sum of $500 which is to be used from time to time as an emergency loan fund to help tide over critical periods in the career of needy and deserving students who are trying to complete a course at Stanford.

Women's Student Loan Fund.—The Women's Student Loan Fund was organized by the Women's Conference by private subscription, and is increased yearly by small sums earned by a committee of the Conference. It is available on the following conditions, for small emergency loans: (1) No interest to be charged until one year after the student leaves the University; interest then begins at six per cent, and is pay-

able annually; (2) all loans to be paid within five years after the student leaves the University. Application for loans from this fund should be made to the Dean of Women.

Scholarships

The Alumni Jordan Scholarships.—The Alumni Jordan Scholarship Fund has been founded largely by physicians who were at one time students of Stanford University. Its purpose is to pay the tuition fees of two or three medical students of high standing, with the understanding that at some future time the amount will be returned without interest. The student who once receives this scholarship loan will be entitled to its use throughout his medical course provided his work continues to be satisfactory.

The Bertha Hyde Braly Scholarship.—In 1916 Mrs. J. M. Braly, of Fresno, established an annual scholarship of $250, in memory of her daughter, Bertha Hyde Braly, '97. The amount of the scholarship was increased to $300 by Miss Elizabeth M. Braly in 1921. The scholarship is available for a woman student who is a resident of either Fresno County or Santa Clara County.

The E. C. Converse Scholarships.—In 1921 the University received a bequest of $50,000 from the estate of Edmund C. Converse for the establishment of the E. C. Converse Scholarship Fund. The income of this fund is to be used under the direction and in the discretion of the President or other ranking executive of the University in the establishment and maintenance of scholarships of not exceeding $500 per annum to be paid to needy and deserving students. Ten undergraduate scholarships of the annual value of $250 each have been created.

The Mabel Hyde Cory Scholarship.—In 1921 Miss Emma L. Martin, '97, and her sister established a scholarship, for four years, of the annual value of $500, in memory of Mabel Hyde Cory, '96, who died February 15, 1921. This scholarship is to be awarded preferably to a needy young woman in the Department of History.

The George E. Crothers Law School Scholarship.—In 1917 Judge George E. Crothers, of the class of 1895, established a Law School Scholarship of the value of two hundred dollars annually.

The Dickey Scholarships.—In 1914 the Trustees of the University received from the estate of the late W. J. Dickey, of Fresno, the sum of ten thousand dollars for the establishment of the W. J. Dickey Scholarship Fund "to aid young men from Fresno County, preferably from Fresno City, to make their way through Stanford University."

The Trustees of the Dickey Estate are Mr. E. A. Waldron, Cashier of the First National Bank of Fresno, and Mr. M. B. Harris, of the Fresno bar. The selection and appointment of the W. J. Dickey scholars is made by the President upon the recommendation of the Committee on Scholarship, subject to the provision that the trustees under the will of Mr. Dickey shall be consulted and their advice taken before any appointment is made. No one may be appointed to a Dickey Scholarship unless he shall have been a resident of the County of Fresno, and preferably of the City of Fresno, for at least two years prior to his appointment; and no scholarship may be held or shared by one person for more than four years.

No one may be appointed to a W. J. Dickey Scholarship unless he has fulfilled all the requirements for regular standing in the University.

Other things being equal, preference shall be given, in making appointments, to first-year students.

Appointments are made for the college year, but may be terminated earlier at the discretion of the committee. Appointments may be renewed at the discretion of the committee, for a total period not to exceed four years.

In making its recommendation the Faculty Committee shall keep in mind that the donor of the W. J. Dickey Scholarship Fund wished the benefits therefrom to be derived by persons who are financially unable to make their way through college. In addition to this fact, character, scholarship, and seriousness of purpose shall be taken into consideration in determining appointments.

The W. J. Dickey Scholarship Fund provides for two scholarships of $300 each, payable in nine monthly installments.

Application for appointment to the W. J. Dickey Scholarships, with pertinent evidence and testimonials, is to be made to the President of the University, who will refer it to the appropriate committee. Candidates shall be recommended by the committee to the President, who will submit the names to the trustees of the Dickey estate, and upon their approval appointments shall be made by the President of the University.

The Henry G. Dodds Scholarship.—In 1921 Mr. Henry G. Dodds established a scholarship fund of $3,000. The income from this fund ($150) is to be awarded annually to a deserving male student, preferably from the Pacific Coast.

The Cyril F. Elwell ('07) Scholarship.—In 1919 Mr. Cyril F. Elwell, '07, established a scholarship of the annual value of $500, to be awarded by the Committee on Graduate Study to a graduate student in

the Department of Electrical Engineering, upon the recommendation of the Department.

The Hiram C. Fisk Scholarship.—In 1920 Mr. W. D. Fisk established a scholarship in memory of his son, Hiram C. Fisk, who is on the Stanford Honor Roll. The amount now available is $250 per annum.

The Gertrude Gardiner Scholarship.—In 1920 Miss Gertrude Gardiner established a scholarship of the annual value of $200, to be known as the Gertrude Gardiner Scholarship, and to be awarded to a non-sorority woman who has been a student in the University for at least two quarters and who is a resident of Roble Hall.

The Wilmer J. Gross ('16) Scholarship.—In 1919 Mrs. Wilmer J. Gross (Dorothy Davy, '16) founded a scholarship of the value of $150 annually in honor of her husband, Wilmer J. Gross, '16, who died in service in France; the scholarship to be open to all undergraduate men in the University who have been in residence at least one year. The appointment shall be based primarily on scholarship, but in addition good moral character and general excellence shall be considered.

Harvard Club Scholarships.—The Harvard Club of San Francisco offers two scholarships, of the annual value of $350 each, to students residing in the neighborhood of San Francisco who may desire to pursue undergraduate studies in Harvard College, or postgraduate studies in Harvard University. Other things being equal, preference will be given to those desiring to pursue undergraduate studies. In awarding these scholarships the scholarly attainments of the applicants as shown by their records, their character, needs, and general development, will be considered. Applications should be made in writing not later than February 15th, to the Chairman of the Scholarship Committee of the Harvard Club of San Francisco, Mr. George S. Potter, 1827 Pacific Avenue, San Francisco.

The Brodie G. Higley ('99) Scholarship.—In 1915 Mr. Brodie G. Higley, of the class of 1899, established through the Alumni Association, an annual scholarship of one hundred and fifty dollars, "open to either a man or woman undergraduate student who is in good and regular standing in the University, to whom the money will be a real assistance." In 1919 Mr. Higley deposited with the Board of Trustees securities to the amount of $3,000 to perpetuate this scholarship.

The selection and appointment of the Brodie G. Higley Scholar will be made by the President upon the recommendation of the Faculty Committee on Scholarship. Appointment will be made for the college year,

but may be terminated earlier on recommendation of the Committee and at the discretion of the President.

Applicants for the scholarship must have been registered in the University for at least three quarters prior to the time of application. In making appointments it will be the purpose of the University to emphasize character, scholarship, and intellectual promise, as well as personal need. The scholarship will ordinarily be payable in six equal installments, beginning October 1st. Applications should be filed with the Academic Secretary of the University.

The Ira S. Lillick Scholarship.—In 1920 Mr. Ira S. Lillick, of the class of 1897, established a scholarship of the value of $500, to be awarded annually to a worthy student, preferably in Law.

The Mrs. Ira S. Lillick Scholarship.—In 1920 Mrs. Ira S. Lillick established a scholarship of the value of $500, to be awarded annually to a worthy student, preferably in Law.

The Ernest A. Love ('18) Scholarship.—In 1920 Mr. and Mrs. Allan Love founded a scholarship, of the value of $150 annually, in honor of their son, Ernest A. Love, '18, who died in service in France; the scholarship to be open to worthy and needy undergraduate men, preference being given to students from Arizona.

The Mrs. McDowell Roble Club Scholarship.—The sum of one hundred and fifty dollars per year has been presented to the University by Mrs. John E. McDowell for the purpose of establishing a scholarship to be granted to a member of Roble Club who has been a student in the University and a resident of Roble Hall for two years, the award being made at the close of the junior year.

Memorial Scholarship.—The trust establishing the Leland Stanford Junior Memorial Scholarship provides a fund of $6,000, the income of which shall be used "to pay the living expenses, cost of books, fees, and other necessary expenses of the holder." Under the present arrangement the Memorial scholar receives in cash $100 per quarter or a total of $300 for the academic year. In addition, the trust sets aside a room in Encina Hall for the use of the holder of the scholarship and for which no charge is made.

The Dorothy Metz ('17) Scholarship.—In 1920 Mrs. Lillian C. Metz established an annual scholarship, of the value of $200, in memory of her daughter, Dorothy Amanda Metz, '17, who died in service, the scholarship to be awarded "to a worthy and ambitious student of limited means."

Regional Scholarships.—Regional Scholarships may be awarded to persons who meet the minimum requirements for admission to the University (fifteen acceptable high school units), who ranked in the upper fifth of their graduating class, counting all four years of the preparatory course, or only the last two, and who need this help in order to enter the University. Nominations for regional scholarships will be received from the organized alumni of the region.

San Mateo High School.—Established in 1921 by the Associated Students of the San Mateo Union High School; $300.

The Rhodes Scholarships.—Under the will of the late Cecil Rhodes two scholarships are assigned to each State and Territory in the United States. Each scholarship has a yearly value of $1,500, and is tenable at any college in the University of Oxford for three successive academic years.

Candidates must be unmarried, must be citizens of the United States, and must be not younger than 19 nor older than 25 on October 1st of the year in which they are elected. All scholars shall have reached, before going into residence, at least the end of their sophomore year at some recognized degree-granting university or college. In accordance with the wish of Mr. Rhodes, the trustees desire that "in the election of a student to a scholarship, regard shall be had to (1) his literary and scholastic attainments, (2) his fondness for and success in manly outdoor sports, such as cricket, football, and the like, (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship, and (4) his exhibition during school days of moral force of character, and of instincts to lead and take an interest in his schoolmates."

The Dr. Emmet Rixford Scholarship in Surgery.—In 1921 Dr. Emmet Rixford, Professor of Surgery in the Stanford Medical School, made a gift of $500, to be awarded to some graduate of Stanford Medical School, or to some member of the staff of the school of rank under that of Assistant Professor, to be chosen by the Medical Faculty, for work on some surgical problem, anatomical, physiological, pathological, or clinical, the problem to be approved by the faculty.

The Marcelle Henriette Rouiller ('15) Scholarship.—In 1920 Madame Jeanne R. Rouiller established a scholarship of the value of $160, in memory of her daughter, Marcelle Henriette Rouiller Calley, '15; the scholarship to be awarded to a worthy and needy student for the payment of tuition fees.

The Leon Sloss Fund.—In 1922 Mrs. Bertha G. Sloss established a fund of $5,000 in memory of Mr. Leon Sloss, one of the original Trustees of the University. The income is to be awarded annually to a needy student. At present this fund is being administered by the Scholarship Committee.

The John Maxson Stillman Scholarship in Chemistry.—From the Stillman Testimonial Fund, presented to Professor John Maxson Stillman by graduates and former students in Chemistry, and others, on the occasion of his retirement from active service in the University, in May, 1917, there has been established the John Maxson Stillman Scholarship in Chemistry. The amount available is $150 per year, and the scholarship is open to undergraduate or graduate students in the Department of Chemistry upon nomination by the department faculty and approval of the President.

The University Scholarships.—In 1919 the Trustees of the University established thirty Stanford Scholarships for Graduate Students, each paying $200 per year of three quarters. Scholarships are awarded for a term of one year, at the expiration of which time the Scholar may be reappointed. Holders of Scholarships are required to pay tuition and incidental fees, the graduation (diploma) fee, laboratory expenses, and all similar charges laid upon other graduate students.

The William Irvin Weaver Scholarship.—In 1919 Miss Eva Ray Weaver, '13, established a scholarship of the annual value of $150, in honor of her brother, William Irvin Weaver, '13, who died in service in France. The scholarship is to be known as the William Irvin Weaver Scholarship, and is to be awarded to a graduate or undergraduate student in the department of Chemistry, on the recommendation of the department faculty, subject to the approval of the President of the University.

Fellowships

Belgian Relief Commission Fellowships.—In 1919 the Committee for Relief in Belgium arranged for the establishment and support of a number of fellowships for Americans to undertake graduate study in Belgian universities, and an equal number for advanced Belgian students in American universities.

The Buckel Fellowship.—In 1914 the University established, through the coöperation of the trustees of the estate of Dr. C. Annette Buckel, a Research Fellowship for the study of backward and feeble-minded children. The annual income from the Buckel estate is supple-

mented by a sum appropriated by the Trustees of the University, making the total amount available for the fellowship $1,000.

FELLOWSHIPS IN EDUCATION.—In 1919 two fellowships were established in Education of the value of $500 each: one, jointly by Professor CUBBERLEY and the Board of Trustees, to be known as the Fellowship in School Administration; the other jointly by Professor TERMAN and the Board of Trustees, to be known as the Fellowship for the Study of Superior Children. Ordinarily these will be awarded only to those who have completed at least one year of graduate study and who are ready to proceed to the Doctorate.

THE FOOD RESEARCH FELLOWSHIPS.—The Food Research Institute has established four fellowships, with stipends ranging from $600 to $1,200 per year (three quarters), for the purpose of promoting research upon food problems.

THE LIONEL REMOND LENOX FELLOWSHIP IN CHEMISTRY.—In 1921 Professor LIONEL REMOND LENOX, of the Department of Chemistry, established a fellowship of the annual value of $600. The conditions under which the fellowship is to be awarded are as follows:

The holder of the fellowship must be a graduate of Stanford University, or of some other college or university of recognized standing, who has taken at least one year of graduate work in the Department of Chemistry of Stanford University, and who is a candidate for the degree of Doctor of Philosophy in Chemistry in Stanford University. He must be of good moral character. He must show an excellent degree of scholarship. The question of the financial needs of the holder need not be primarily considered, though, in general, where there are several applicants of equal degree of scholarship, preference should naturally be given to the one most in financial need.

The selection of the candidate for this fellowship is to rest entirely with the Department of Chemistry.

SPERRY FELLOWSHIP.—In 1919 the SPERRY FLOUR COMPANY established an industrial fellowship, of the annual value of $350.

THOMAS WELTON STANFORD FELLOWSHIP IN PSYCHIC RESEARCH.—From the "Psychic Fund," created by Mr. Thomas Welton Stanford, in 1913, the Trustees have established the Thomas Welton Stanford Fellowship for Research in Psychic Phenomena.

TEACHING FELLOWSHIPS.—In 1917 the Board of Trustees established two teaching fellowships in Chemistry of the value of $600 each.

The University Fellowships.—In 1917 the Trustees of the University established two University Fellowships, and in 1919 six additional Fellowships, of the value of $750 each per year (three quarters). These fellowships are awarded annually by the Committee on Graduate Study with the purpose of fostering advanced study and research in the University. In general these fellowships will not be awarded to students in their first year of graduate study.

Yale Alumni Association Fellowship.—The Yale Alumni Association of California awards annually the sum of $300 (to which Yale University adds an amount equal to the charge for tuition) to a graduate of the University of California or of Stanford University, for the pursuit of graduate study at Yale. Applications should be addressed to the Secretary of the Yale Alumni Association, University Club, San Francisco.

The Guild

The Guild is an organization which seeks to make provision for the care of all cases of serious illness among students. This is now accomplished for non-contagious diseases through an arrangement with the Palo Alto Hospital and, for medical students, with the Stanford University Hospitals in San Francisco. For the care of contagious diseases, provision has been made by the maintenance of a Detention Hospital on the University Campus. A reduction of two dollars per day from the regular hospital charges is given all members of the guild; a substantial portion of the charges for medical attention and special hospital service is paid by the guild.

GENERAL REGULATIONS

Registration

ON the appointed Registration Days, in October, January, April, and June, each student must obtain a certificate of registration *in person*, at the Registrar's office.

Matriculated students may register after the appointed Registration Days upon payment of a special fee: two dollars on the first or second day, three dollars on the third day, four dollars on the fourth day, and so on up to the maximum of ten dollars. Registration of undergraduates and specials will not be permitted later than three weeks after the beginning of instruction. (Places are not held for women after the regular registration days, except by permission of the Committee on Registration granted in advance.)

Study-List Card

At the Registrar's office the student receives a card for selection of studies for the quarter. This card, properly filled out, and approved, for lower-division students, by the Committee on Lower Division Administration, for others, by the Major Department, must be filed with the Registrar at the time of registration; but late study cards will be accepted upon payment of a special fee of two dollars. Students registering late are admitted to particular classes only by permission of the instructor concerned. All work for which university credit is desired must be duly registered.

Enrollment in Classes

A student desiring to enter any class presents his certificate of registration to the instructor for enrollment at the beginning of each quarter. Whether the student is qualified for enrollment in a particular class is a question to be decided by the instructor in charge. In general, the prerequisites for taking any given course are noted under "Courses of Instruction."

Change of Studies

A student desiring to drop a subject once taken up, or to take up a new subject after the study card has been filed, must present to the appropriate committee a petition for such change, approved by the major department and by the instructors whose subjects are to be taken or dropped. In general, petitions so approved, and not involving courses required of lower-division students, if they do not give the

student too many unit-hours, or too few unit-hours, and if presented within three weeks after the beginning of the quarter, are granted without question. At the end of the first three weeks the undergraduate study lists are to be considered as fixed. After this period petitions to drop or take up courses are granted only for extraordinary reasons, and, where the taking up of new subjects is involved, only on payment of a special fee of two dollars for each course; if otherwise accepted but presented after the close of the quarter, they will be granted only on payment of a special fee of four dollars for each course. During the last four weeks of the quarter no courses may be officially removed from the student's study list for any reason whatever; but if failure to complete a course satisfactorily be due to illness or other unavoidable circumstance, application may be made to the Committee on Scholarship for such relief as shall seem equitable.

Change of Major Subject

Petitions to change the major subject will be granted when approved by the departments in charge of both the old and the new subjects, the student being held to all the requirements of the new major subject.

Amount of Work

Fifteen hours per week of recitations or lectures, or an equivalent in laboratory work, constitutes an average quarter's work. In general students may register for as few as *thirteen* or as many as *eighteen* unit-hours; but in the case of students doing outside work for self-support or otherwise, and where considerations of health are involved, special restrictions will be made upon recommendation of the medical adviser; and where conditions or failures have been incurred in the preceding quarter, not more than *fifteen* units may be registered unless by special permission of the Committee on Registration granted in advance. Permission to register for less than *thirteen* units may also be granted for special reasons; but registration for less than *ten* units will not ordinarily be accepted. Students with an average record in the University of 'B' or above may register for as many units in excess of *eighteen* as shall be approved by the Lower Division Committee, or the major department, as the case may be; students with less than a 'B' average may not register for more than *eighteen* units, unless, in exceptional cases, permission to register for additional units is granted in advance by the Committee on Registration. Graduate students are not held to any special number of unit-hours, but registration will not ordinarily be permitted unless such students are prepared to devote at least half of their working time to University study. Petitions for

irregular registration should be presented at the beginning of the quarter.

Every unit for which credit is given is understood to represent approximately, for the average student, three hours of actual work per week, through one quarter. Thus, in lecture or recitation work, for one unit of credit one hour per week may be allotted to the lecture or recitation and two hours for preparation or subsequent reading and study on the part of the student; but if a less amount of time is allotted for preparation or subsequent reading or study, there shall be a proportionate decrease in the amount of credit. Where the time is wholly occupied with drawing, field, or laboratory work, or in the class-room work of conversation classes, three full hours per week through one quarter are expected of the student for each unit of credit; but where such work is supplemented by systematic outside reading or experiment under the direction of the instructor, such a reduction may be made in the actual drawing, field, laboratory, or class-room time as seems just to the department concerned.

Scholarship Honors

High scholastic attainment is recognized by the University in the following ways: By the award of honors upon the completion of the Lower Division, to about the upper tenth of the class; by designating as Stanford Scholars, about thirty students in the Upper Division; by awarding the degree of Bachelor of Arts "with distinction" to about one-tenth of the graduating class, "with great distinction" to about one-twentieth of the graduating class.

Scholarship Grades

In reporting the standing of students at the end of each quarter the following grades are used: A, B, C, D, passing grades, corresponding in a general way to the terms, 'excellent,' 'good,' 'fair,' 'barely passed'; ('+,' passed, without defining grade); '±,' conditioned; ('—'), failed. In grading classes, 'A' is considered as normally applicable to not more than fifteen per cent, 'B' and 'C' to thirty-five per cent each, and 'D' to fifteen per cent of the students of passing grade. (This distribution of grades is advisory, and is understood to admit of a certain degree of flexibility in the handling of small classes.)

Conditions and Incompletes

A student conditioned or reported incomplete in any subject must remove the deficiency within one calendar year or the work will be considered a failure.

A deficiency due to failure to take or pass a written examination is removed by passing a similar test on the same work. This may be done by taking a regular class examination in the course if repeated in time, or by taking a special written examination to be held during the fourth week of any quarter. A student is entitled to one examination within the year, either regular or special.

Where deficiencies are due to failure to take or pass an oral examination, the time for holding a new oral examination to remove the condition or incomplete, is determined by the instructor concerned. Compliance with the regulations for written examinations, so far as practicable, is required.

Deficiencies due to other causes may be removed by any work or test satisfactory to the department concerned.

Only one examination to remove a condition is permitted. If an examination to remove an incomplete results in a condition, but one examination to remove the condition is allowed. Instructors will report grades on all such examinations to the Registrar. For every removal of a condition or incomplete, except when removed by passing a regular class examination, a fee of two dollars shall be charged each student. Any deviation from these regulations requires the approval of the Scholarship Committee.

Scholarship Reports and Notices

Mid-quarter reports on scholarship are sought from all instructors, and students reported as doing unsatisfactory work are notified of their deficiencies.

At the middle and at the end of the quarter each department is notified of all serious deficiencies in scholarship affecting students whose major work is in that department.

When a student is seriously delinquent in scholarship, the fact is communicated to his parent or guardian.

Probation and Disqualification

Standard work is obtaining fifteen units, and as many grade points as registered units, per quarter. This standard applies to each quarter and also as an average standard to be maintained on the entire record of the student.

At the end of any quarter in the University a student is placed on probation who fails to obtain twenty-two counts (the sum of units and grade points). At the end of the first or second quarter he is considered as failing in his studies, and is disqualified for further attendance at the

University, if he does not obtain ten counts. At the end of subsequent quarters less than fifteen counts will result in "disqualification."

At the end of the second and every subsequent quarter the student's entire accomplishment is compared with what would have been obtained had he done standard work. If he is above, at, or even slightly below standard his scholarship standing is considered normal. But if his deficiency becomes considerable the result is probation, and in serious cases disqualification.

Application for reinstatement is not considered until the end of one calendar year after disqualification, and readmission is granted only upon a showing of thoroughly satisfactory accomplishment in another college or university, or of a year devoted successfully to serious outside work.

Leave of Absence in Case of Delinquent Scholarship

Leave of absence will not generally be granted to a student on probation, nor to any student whose work during the current quarter is unsatisfactory, unless applied for at least four weeks before the end of the quarter.

From Special to Regular Standing

Special students may be entered in regular standing on passing examinations in the required number of entrance subjects, provided such examinations are passed not later than two years after matriculation. In place of entrance examinations, university work to the amount of seven units for each entrance unit may be offered in university subjects which are also included in the entrance group. (Entrance examinations are given in June by the College Entrance Examination Board; in September by the University, using the comprehensive question papers prepared by the Board.)

University Credit for Extra Entrance Subjects

High school subjects offered in excess of the fifteen units required for undergraduate standing may be credited toward graduation, a maximum of seven university units for one entrance unit, under the following conditions: (1) The subject must anticipate a course or courses given in the University (e. g., advanced mathematics, the laboratory part of elementary chemistry, or a foreign language); (2) the student must, during his first six quarters in the University, either pass the regular quarterly examinations in the corresponding course, or else complete an advanced course in the University in the same subject with a grade not lower than 'B.' Additional high school units earned after matriculation

may be offered only by special students and for the purpose of making up entrance deficiencies.

University Credit for Special Courses

Matriculated students on leave of absence may take work in other universities, usually without any restrictions other than those imposed by the institution in question. But work undertaken in any Summer Session may be subject to special regulations, and must be approved by the major department and by the department in which work is to be taken.

Work of a special character taken outside of regularly scheduled classes, *in absentia* or during vacation periods, may be credited under the following conditions: (1) The work must be acceptable as part of the major requirements for the A.B. degree in the department whose courses it parallels or supplements, must be given necessary supervision and direction by such department and subjected to tests equivalent to those in regularly scheduled courses, and must be approved by the major department and by the Committee on Admission and Advanced Standing; (2) Such work may not be offered by students whose general scholarship record is unsatisfactory, nor to cover deficiencies due to poor scholarship; (3) Not more than forty-five units may be credited toward graduation for such special courses.

The last quarter's work of every candidate for a degree must ordinarily be taken in this University; but in special cases, students who have obtained at least one hundred and thirty-five units in resident work, and who have completed all major department requirements, may be exempted from this regulation and permitted to complete the required number of units under the provisions noted above.

Advanced Credit

Students from institutions of equivalent rank, who maintain a satisfactory record after admission, may expect to receive the same standing as at the former institution, except that no such student can be given more than three years' advanced credit (one hundred and thirty-five unit-hours toward graduation), and that differences in standard of entrance preparation will be taken account of. Every candidate must present a full certified transcript of his college record, including entrance credit, and a letter of honorable dismissal.

Recommended graduates of approved State Normal Schools where the normal training has been preceded by a full four years' high school course, or where high school and normal school courses together cover six years' work, may ordinarily be granted an advanced credit of sixty-

seven units; in the case of California State Teachers' Colleges, beginning with the 1921 graduating classes, this advanced credit may be increased to ninety units, provided, in the judgment of the Committee on Admission and Advanced Standing, the courses taken by the student are substantially equivalent to the work of the lower division of the University.

Advanced standing for work done before matriculation will generally be given only when certified as having been completed in some institution of recognized collegiate rank, except as provided above for extra entrance units, or, in particular cases, to recommended graduates of approved State Normal Schools. But in special cases permission may be given by the Faculty to receive credit on examination for work equivalent to regular University courses. Application for such examinations, with satisfactory evidence of the work accomplished, must be presented to the Committee on Advanced Standing. Applications for advanced standing on the basis of work done before entering the University must be made within two years after matriculation.

Graduate Standing

Admission to technical graduate standing does not imply admission to candidacy for an advanced degree (for the conditions of such candidacy see p. 120). If graduates of other universities desire to become candidates for the baccalaureate degree, the question of units required for graduation may be waived, upon approval of the Committee on Admission and Advanced Standing, and the degree conferred on the satisfactory completion of not less than forty-five units of university work and the fulfillment of all major and minor requirements. Graduate students not candidates for any degree, may be permitted, upon the approval of the major department, to undertake such work as their previous training seems to warrant.

Leave of Absence

A student desiring to leave the University for a brief time should apply to the Committee on Registration. If leave of absence is desired on account of sickness, the petition must be indorsed by the medical adviser. A leave of absence is merely a justification of the absence and not a relief from the work that has been missed. A leave of absence is usually necessary only in case of interrupted work; a student in good standing absent one or more quarters may re-enter at the beginning of any quarter without formal petition.

Honorable Dismissal

An honorable dismissal means that the student is permitted voluntarily to withdraw from the University and is commended to the favorable consideration of any institution he may wish to enter. An honorable dismissal may be granted upon written application to any student not under discipline for misconduct.

Conduct of Students

The Committee on Student Affairs exercises the authority of the University over all students individually with respect to personal conduct, and, with the exception of athletic and debating teams, over student organizations which bear the name of the University, or which represent the University in non-academic activities, and, in general, assumes such measure of authority over non-academic organizations of students as may be needful to safeguard the general good name and well-being of the University community.

Individual or collective student enterprises, using the University name, which involve the absence of the participants from the University, must receive the official sanction of the Faculty Committee concerned.

In the government of the University the largest liberty consistent with good work and good order is allowed. Students are expected to show both within and without the University such respect for order, morality, personal honor, and the rights of others as is demanded of good citizens. Failure to do this will be sufficient cause for removal from the University.

In 1908 the Board of Trustees of the University provided that in all future rentals or leases of houses as fraternity chapter houses it shall be expressly stipulated that no intoxicating liquors of whatever kind shall ever be sold or used on the premises. The Trustees also by formal resolution requested the Academic Council to prohibit the use of liquor in fraternity chapter houses, students' club houses, and other student lodgings.

This action of the Board of Trustees is in harmony with the instructions given by the Academic Council to its Committee on Student Affairs, and defines the policy of the University. Prohibition of the use of liquor extends to all student lodgings whether on the campus or elsewhere. The University assumes that the act of registering as a student implies full acceptance of this policy.

Student Control

In 1911–12 the Faculty Committee on Student Affairs entered into an agreement with the University Conferences by which responsibility for the government of the students and for maintaining University standards was assumed by the men and women of the University. This delegation of responsibility, temporarily recalled, for men, in 1918, was resumed in 1919–20, under an agreement between the President and the men of the University. Under this agreement the responsibility for maintaining University standards among the men students is assumed by the senior class. The Men's Student Council is responsible for the enforcement of University rules governing student conduct, all actions of the Council being submitted directly to the President for sanction or disapproval.

University Health Control

The University exercises an advisory control over student health affairs through the Committee on Public Health.

Every student upon entering the University is required to report for a brief examination. General health and evidence of effective vaccination are the important factors in the examination. Any condition which may place a limitation on the amount or kind of work planned by the student may be discussed with him or made the subject of a report to his major department or to the Committee on Registration.

Students intending to train for any of the athletic teams, or to register for gymnasium work, are required to pass a careful physical examination at the beginning of each quarter.

VACCINATION

Not later than three weeks after the day of registration every student must file with the Committee on Public Health a certificate, signed by the vaccinator, who must be a duly licensed and practicing physician, giving exact dates of vaccination, and showing either successful vaccination within seven years, or unsuccessful vaccination twice within the past twelve months.

Non-compliance with these requirements will result in a fine of two dollars after three weeks, and an additional fine of four dollars after four weeks, and cancellation of registration after five weeks from the day of registration.

Certificates are to be filed at the Registrar's Office. They will be returned upon request. "Conscientious objections" will not be recog-

nized as exempting anyone. Unavoidable delay, or failure to secure a satisfactory certificate, will not exempt anyone from the fine.

(It is advised that candidates comply with this requirement before coming to the University, and that vaccination certificates be sent in advance by mail. Blank certificate forms may be obtained on application to the Secretary of the Public Health Committee, at the Registrar's Office.)

"Immunity Reaction" will be considered equivalent to one unsuccessful try. Only "vaccinia" will be accepted as successful vaccination.

DEGREES AND TEACHING CREDENTIALS

CANDIDATES may be presented for graduation in January, April, June, and October.

No degree will be conferred upon any person who has not spent at least one year in resident study at the University. No honorary degrees are given.

Lower Division Requirements

The Lower Division consists of the first and second years of the University curriculum. Its object is to introduce the student to fundamental fields of human interest, and to this end it requires the completion of certain studies during the first two years. The members of the Committee on Lower Division Administration stand in the same relation to students enrolled in the Lower Division as that occupied by departmental advisers toward their major students.

The work of the first two years is made up of group requirements, subject requirements, and electives, under the supervision of the Committee on Lower Division Administration. These requirements are as follows:

GROUP REQUIREMENTS

During each of the first two years the student is required to take *nine units in each of the following groups:* (1) language and literature (English and foreign), formative art; (2) natural sciences, mathematics; (3) social sciences (including history, political science, economics, philosophy, and education).

SUBJECT REQUIREMENTS

Six units in English composition (English 2, three units per quarter for two quarters), to be taken during the second year in the University. (A course in elementary English composition (English A) is also prescribed for first-year undergraduates who do not satisfy the matriculation test.)

Twenty-two units in one foreign language, or fifteen units each in two foreign languages. (This requirement may be anticipated in the high school, its equivalent being three entrance units in one foreign language or two entrance units each in two foreign languages.)

Nine units in a biological science, and nine units in either Physics or Chemistry. (One of the sciences may be anticipated in the high school,

its equivalent being one entrance unit in a biological science, or in Physics or Chemistry, or in general science.)

Nine units in American history and nine units in general history, normally taken in the second year. (One of the history requirements may be anticipated in the high school, its equivalent being one entrance unit in history.)

Twelve units in Citizenship, to be taken during the first three quarters in the University (four units per quarter).

A particular course may count toward the fulfillment of both subject and group requirements.

All undergraduates enrolled in the Lower Division, with the exception of those registered in the Military department, are required to devote three schedule hours per week, for a maximum of six quarters, to physical training. Students must register in regular classes and satisfactory attention to the work is required.

Major Subject

The selection of a Major Subject will ordinarily be made at the end of the second year, upon completion of the requirements of the Lower Division. The Lower Division student may, however, at the beginning of any quarter, designate the particular department in which he expects later to do his major work, and may be directed to the department for consultation and advice regarding electives before making up his study-list.

At the beginning of the junior year, and upon completion of the Lower Division requirements, the student selects as a Major Subject the work of some one department. The Major Department has the authority to prescribe not more than sixty units in the Major Subject (exclusive of elementary courses in the Major Department which may be offered for entrance). The Major Department shall also recommend such other courses as it may consider desirable, and shall exercise an advisory supervision over the student's curriculum from quarter to quarter. It shall be considered a general principle of University policy, to be departed from only in exceptional cases, that at least ninety of the one hundred and eighty units required for the degree be taken outside of the Major Department.

In applied science the Major Department may prescribe so much of the entire one hundred and eighty units as it shall deem essential to the technical or professional requirements of the major subject.

Within these limitations the work in all departments is elective, and the student may freely choose any course which his previous studies have prepared him to undertake.

(A student in regular undergraduate standing who does not intend to become a candidate for the A.B. degree, may choose, with the approval of the Lower Division Committee, or of the Major Department, any course in the University which his previous training has prepared him to undertake.)

Bachelor of Arts

The degree of Bachelor of Arts (A.B.) is conferred upon candidates who have fulfilled the following requirements:

(1) The completion of one hundred and eighty (quarter) units of university work, including the required lower division courses, together with the required physical or military training. (A special student who has completed two hundred and twenty-five units of university work, including all lower division and major requirements, and whose general university record is deemed proof of superior scholarship, may become a candidate for graduation on approval of the Committee on Admission and Advanced Standing. Petitions to this end will not ordinarily be considered by the Committee until after the student has completed one hundred and eighty units of university work.)

(2) The acquirement of as many grade points as there are units registered for on the candidate's record card. A unit of credit passed with a grade of 'A' counts three grade points; with a grade of 'B,' two grade points; with a grade of 'C,' one grade point; with a grade of '+,' one grade point; with a grade of 'D,' no grade points. A 'condition' removed does not count grade points, no matter what the final grade may be. (Advanced credit for work in other institutions counts one grade point for each unit of credit.)

(3) The completion of the major subject requirements as prescribed by the Major Department.

The recommendation of the Major Department is necessary to graduation.

Forty-five units constitute a normal year's work (see p. 108), but the ordinary class divisions (freshman, sophomore, junior, senior) are not recognized by the University. The degree is conferred whenever the requirements are met, without regard to the time spent, except that at least forty-five units (including, except in special cases, the last fifteen) must be completed in this University.

As a recognition of high scholastic attainment the Bachelor's degree may be granted "with distinction" or "with great distinction."

Candidacy for Advanced Degrees

Candidates for advanced degrees must be registered in the University and must file with the Registrar an application for candidacy. In the case of candidates for the degree of Master of Arts or Engineer this application must be accompanied by a program of study, approved by the department faculty concerned. The approval of this program of study by the Committee on Graduate Study is necessary for admission to candidacy for the degree. It is to be submitted at the beginning of the quarter next preceding that in which the degree is to be taken. Candidates for the degree of Doctor of Philosophy, to gain admission to candidacy, must file in the same manner their program of study, and obtain the approval of the program by the Committee on Graduate Study; they must also obtain the final approval of the Committee as set forth below in Section 4 of the conditions governing the granting of that degree. Advanced degrees will be conferred only upon the recommendation of the Committee on Graduate Study. In no case will the degree of Master of Arts be conferred in less than three quarters. Statements once submitted must be kept on file and can not be withdrawn even after substitutes have been filed and accepted. Candidates for the degrees of Juris Doctor and Doctor of Medicine are exempt from the requirement that a program of study shall be filed a definite time in advance.

Master of Arts

The degree of Master of Arts (A.M.) is conferred on graduates of this University, and on those who have had equivalent training elsewhere, upon the satisfactory completion, in residence, of one academic year of work beyond the baccalaureate requirements of the department in which the degree is sought, and upon the presentation of an approved thesis, and the passing of such general or final examination as the major department may require. A longer period of residence will be required of candidates who are inadequately prepared or who devote less than the normal proportion of time to their graduate course. Work may be done in connection with the regular courses of instruction or, as research, independently of them. The program of study must form a consistent plan of work pursued with some definite aim, whether it lies wholly in a single department or field of study, or in

more than one. At least two-thirds of a year's work must be devoted to advanced or graduate study in the major subject or in intimately allied subjects.

A candidate for the degree of Master of Arts must display ability to do independent work. A report upon the character of the work done shall be made by each instructor under whom a candidate is registered.

The master's thesis, bearing the approval of the instructor under whose supervision it was prepared, must be submitted to the Committee on Graduate Study by the date on which instruction closes for the quarter in which the degree is taken; upon acceptance, it shall be suitably bound and placed in the University Library. The Committee on Graduate Study requires that the original, not a carbon copy, of the master's thesis, written on paper of standard size and weight, be submitted and filed. The title-page shall be of the form prescribed by the Committee.

Engineer

In the departments of applied science the professional degree of Engineer is conferred on graduates of this University, and on those who have had equivalent training elsewhere, upon the satisfactory completion, in residence, of one or two years of professional study beyond the baccalaureate requirements of the department in which the degree is sought, and upon the presentation of an approved thesis, showing ability to do independent work. Upon the recommendation of the department, and in order to permit the carrying on of advanced work with equipment or under conditions not available at the University, the requirement of residence may in part be waived.

The special regulations stated above for the degree of Master of Arts apply also to the degree of Engineer.

Juris Doctor

The degree of Juris Doctor (J.D.) is conferred on students who have previously received the academic degree of Bachelor of Arts, or an equivalent degree elsewhere, upon the completion of the three years' professional law course. The first year of the professional law course may be taken by candidates for the A.B. degree.

Doctor of Medicine

The degree of Doctor of Medicine (M.D.) is conferred on students who complete the five years' curriculum in medicine (which includes the interne year), based upon the three years' pre-medical course as laid down by the University.

Doctor of Philosophy

The degree of Doctor of Philosophy (Ph.D.) is conferred on graduates of this University, and on those who have had equivalent training elsewhere, upon the satisfactory completion of at least three years of graduate work, beyond the baccalaureate requirements of the department in which the degree is sought, under the following conditions:

1. At least the last year of study must be spent in residence at this University.

2. At least one year prior to the date when the degree is sought, the candidate must show a reading knowledge of French and German in his special field. The faculty of the department in which the major work is taken determines whether this requirement has been met.

3. The program of study must include one major subject and one or two minors. The minor subject or subjects shall represent approximately one-third of the program of study; except that such minor subjects may be waived upon the recommendation of the major subject department, with the approval of the Committee on Graduate Study, when the breadth and extent of the candidate's training appear to the Committee to justify such a course.

4. Final approval of candidacy must be obtained from the Committee on Graduate Study, not later than the close of the second quarter preceding the one in which it is proposed to take the oral examination. This approval will be based on the report of a special committee of seven members of the faculty to be appointed by the chairman of the Committee on Graduate Study, of whom one member shall be chosen from each department represented by the major and minor subjects of the candidate, and the other members (one of whom shall be designated as chairman) from the faculties of other departments. This special committee shall be appointed at the beginning of the last year of candidacy and shall consider and report (*a*) whether the candidate has pursued in a satisfactory manner the program of study upon which the provisional approval of candidacy was obtained, as evidenced by the record of his studies and by such written work as he may wish to present for inspection; (*b*) whether the preliminary draft of his thesis, or such portion of it as may be deemed representative, gives promise of being completed satisfactorily as provided below; and (*c*) whether he is eligible, in respect of comprehensive grasp of his major and minor subjects, to be admitted to the final oral examination. The report will be based in part on a conference with the candidate ordinarily of not more than one hour's duration. The major and minor departments should also certify to the special committee the results of such compre-

hensive written examinations as can be conveniently set before the time of final approval of candidacy.

5. The candidate must present a thesis at least six weeks before the close of the quarter in which the degree is sought, in form and content acceptable to his department and to the Committee on Graduate Study. Before the degree is conferred he must either (*a*) deposit one hundred printed copies of the thesis in the university library, or (*b*) deposit an original typewritten copy of the thesis with the librarian, and at the same time either deposit the sum of $50 or file an acceptable surety bond in the sum of $100 with the treasurer of the University, as a guarantee that the thesis will be printed and the required number of copies deposited within two years of the date of receiving his degree. If one hundred copies of the thesis are deposited within the requisite period of two years, the candidate's deposit or bond will be returned to him; if not, the Committee on Graduate Study may use the sum forfeited for the printing, by the University, of the thesis or of such portion as is deemed best.

In case the candidate can present evidence that his thesis, or an acceptable portion of it, has been accepted for publication by a reputable scientific journal or in the proceedings of a learned society, and that publication within two years has been assured, the degree may be conferred after he has deposited, together with the typewritten copy of the thesis, a sufficient sum to cover the cost of one hundred off-prints from the journal or volume in question. When the thesis is of unusual length, and at the same time is of such a character that a representative portion, of independent value, can be excerpted, printed copies of this portion may be deposited with the librarian, in place of the whole, with the approval of the department concerned and the Committee on Graduate Study. In such cases the printed portion must amount to not less than twenty-four octavo pages, and must be accompanied by a statement indicating the nature of the entire thesis.

6. In addition to satisfying the requirements of major and minor departments, the candidate must pass a final oral examination approximately three hours in length by an examining committee of the faculty, conducted in the presence of such other members of the faculty as care to attend. This examining committee shall consist of (1) the chairman of the Committee on Graduate Study, presiding; (2) the professors in the group of departments in which the major subject lies; (3) in addition, the professor or professors in charge of the minor subject or subjects, if lying in another group of departments. The five groups of departments are language and literature, history and social sciences, biological sciences, pure mathematical and physical sciences (including

applied mathematics), engineering sciences. The departments of philosophy and education are for this purpose members of all groups; but, in case of a candidate in either subject, shall be affiliated to the group to which the candidate's work is most germane. The Committee may at its discretion invite other members of the faculty to participate in the oral examination.

Persons who contemplate offering themselves as candidates for the Ph.D. degree are invited to correspond with the instructors in the subjects involved.

Advanced Degrees in the Medical School

The departments of the Medical School are considered as equivalent to other departments of the University in respect to candidacy and requirements for the degrees of Master of Arts and Doctor of Philosophy, and all the foregoing regulations apply to these departments and department faculties as to departments and department faculties at the University, with the following modifications and limitations:

1. Candidates for these degrees must have received the degree of A.B. at Stanford, or an equivalent training elsewhere, and must have the approval of the department faculty in which the degree is sought. The M.D. degree will ordinarily be required as a prerequisite for those wishing to do clinical work.

2. Time spent in candidacy for the degree of Master of Arts or Doctor of Philosophy will not be counted towards the degree of Doctor of Medicine.

TEACHING CREDENTIALS

Teacher's certificates are issued by County, and City and County Boards of Education under the provisions of Section 1519, subdivision 5 (*a*), Section 1775, subdivision 1 (*a*), and Section 1792 of the Political Code of California. The State Board of Education of California, in accordance with the state law, has empowered the University (through the School of Education) to grant recommendations for teacher's certificates, valid in this state, and of four grades: (1) Elementary, (2) Junior High School, (3) High School, and (4) Special. Preliminary certificates, valid only for cadet teaching in connection with Education course 201, are also granted. These are valid for teaching and are granted under the following conditions:

1. For the Elementary-School Certificate

(Valid for teaching in the eight grades of the elementary schools.)

1. The possession of a Bachelor's degree from this University.

2. The completion of at least 15 quarter units of college work in each of three of the following departments or lines of work: English,

some other language than English, Graphic Art, History and Economics, Mathematics, Physical Science, Biological Science, General Science.

3. The completion of at least 18 quarter units of work in the Department of Education, which must include: *(a)* Practice in Teaching and School Management, 8 units (courses 199 and 201 will satisfy this requirement); *(b)* Elementary Education, 3 units (course 150); *(c)* California School System and Law (course 155); *(d)* Education for Citizenship (course 160); *(e)* additional work in Education (courses below 200 are suggested as desirable courses from which to select) sufficient to make up the required number of units.

2. For the Junior-High-School Certificate

(Valid for teaching in the seventh, eighth, or ninth year of the public schools of California, when organized as intermediate schools or junior high schools.)

1. The possession of a Bachelor's degree from this University, and of a valid Elementary Certificate.

2. The completion of at least 23 quarter units of approved work in the Department of Education, in the case of non-normal-school graduates, and of at least 8 units, in the case of normal-school graduates, including Education 196 in both cases.

3. The completion of additional work in subject-matter courses of not less than the following:

(a) For Normal-School Graduates, either of California State Teachers Colleges, or of teachers colleges or normal schools elsewhere which have been accredited by the State Board of Education as equivalent, not less than one year (45 quarter units) of college work, of which at least 33 units shall have been in two of the following departments or lines of work: Latin, German, French, Spanish, English, History, Mathematics, Physical Science, Biological Science;

(b) For non-Normal-School Graduates who possess a valid California Elementary-School Teacher's Certificate, not less than two years (90 quarter units) of college work, of which one-half (45 units) shall have been in two of the departments or lines of work listed above under *(a)*.

3. For the High-School Certificate

(Valid to teach in the high schools or elementary schools, or to do supervisory work, in California.)

In all cases the candidate must hold a Bachelor's degree from some institution requiring eight years of high-school and college work for such degree, must satisfactorily complete the required work in at least one Teaching Major and one Teaching Minor, with the exception that where the Major is Education two Minors are required, and in addition

must complete in this University a varying amount of graduate study, to be determined by the following conditions:

GROUP I: STANDARD GROUP

1. One year (at least 39 quarter units) of graduate study, which shall include one full-year course of advanced (numbered 100 or above) or graduate work (not less than 9 units) in at least one subject in which recommendation is sought.

2. At least 27 quarter units in Education, including the following courses: (*a*) School and Classroom Management, 2 units (course 199); (*b*) Practice of teaching, with conferences, 6 units (course 201); (*c*) Secondary Education, presenting particularly the purpose and attainable goals of high-school work, 3 units (course 195); (*d*) The work of the Junior High Schools, 2 units (course 196); (*e*) California School System and Law, 3 units (course 155); (*f*) Education for Citizenship, 3 units (course 160); (*g*) A Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, if such course be given in the institution and be accepted or listed under the work in Education (6 units maximum for all such courses); (*h*) Such other courses relating to the theory, function, and administration of public education, as are needed to complete the required 27 units.

3. Candidates who have taught or been engaged in school supervision in this or any other state, and who present credentials showing that they have done so with reasonable success, may be excused from 6 of the 27 units of Education represented by the practice teaching (201), and may also be excused from or allowed to substitute other work in Education for the course in School and Classroom Management (199). All students desiring such exemption must make application on Form B, to be obtained at the office of the Secretary of the School of Education, Room 52.

GROUP II: EXPERIENCED-TEACHERS' GROUP

Teachers who have had at least seventeen months of satisfactory experience in elementary or secondary schools, in this or other states, may be exempted, if their application for such exemption is approved by the School of Education, from as much as one-half of the year of graduate work, and from as much of the required work in Education as their experience seems to warrant. In any case all such persons will be expected to meet at least the following requirements:

1. Two quarters (at least 26 quarter units) of graduate study, which shall include not less than 9 units of advanced (numbered 100 or above) or graduate work in at least one subject in which recommendation is

sought. Students who can arrange their graduate work so as to be present during the summer quarter may satisfy the residence requirement by one and a half quarters, if other requirements can also be met in this time.

2. At least 18 units of work in Education, including (*a*) Secondary Education, 3 units (course 195); (*b*) The Junior High School, 2 units (course 196); (*c*) California School System and Law, 3 units (course 155); (*d*) Education for Citizenship, 3 units (course 160); (*e*) A Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, as may be determined after consideration of the individual case (6 units maximum for all such courses); (*f*) Additional courses as approved to make up the required 18 units. Application for exemption from Education requirements on the basis of teaching experience must also be made on Form B.

GROUP III: NORMAL-GRADUATE GROUP

1. Graduation from an approved normal school.

2. Two quarters (at least 26 quarter units) of graduate study, which shall include not less than 6 units of advanced (numbered 100 or above) or graduate work in at least one subject in which recommendation is sought (with permission to reduce this to one and a half quarters, as under Group II).

3. At least 18 quarter units in Education, including (*a*) Secondary Education, 3 units (course 195); (*b*) The Junior High School, 2 units (course 196); (*c*) California School System and Law, 3 units (course 155); (*d*) Education for Citizenship, 3 units (course 160); (*e*) A Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, if such course be given in the institution and be accepted by and listed under the work in Education (6 units maximum for all such Teacher's Courses); (*f*) Additional courses as approved to make up the required 18 units. In lieu of the Teacher's Course, other courses in Education must be taken to make up the required 18 units.

GROUP IV: SPECIAL NORMAL-COURSE GROUP

1. Two quarters (at least 26 quarter units) of graduate study, which shall include not less than 6 units of advanced (numbered 100 or above) or graduate work in at least one subject in which recommendation is sought (with permission to reduce to one and a half quarters as under Group II).

2. At least 18 quarter units in Education, including (*a*) Secondary Education, 3 units (course 195); (*b*) The Junior High School, 2 units

(course 196); (*c*) California School System and Law, 3 units (course 155); (*d*) Education for Citizenship, 3 units (course 160); (*e*) A Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, if such course be given and be accepted by and listed under the Department of Education (6 units maximum for Teacher's Course); (*f*) Additional courses as approved to make up the required 18 units. In lieu of the Teacher's Course other courses in Education must be taken to make up the required 18 units.

3. One half-year (preceding or following the two quarters of graduate work) in any California State Teachers College which offers a special half-year (or two terms) of full-time instruction, especially selected for college graduates preparing for high-school certification in California, and approved by the State Board of Education.

4. For Special Certificates

A Special Certificate of Secondary grade, authorizing the holder to teach only such branch or branches and in such grades as are named in such certificate (manual and fine arts, technical arts, household arts, commercial subjects, physical education activities, oral and dramatic expression, modern languages, journalism, music) may be granted as follows:

1. To recommended candidates who have had at least four years' instruction beyond that required for graduation from a high school maintaining a four-year course in advance of the eighth grade, or who have had an equivalent amount of training.

2. At least one-half (90 quarter units) of this four years of collegiate instruction must have been devoted to study or work in the special subject or subjects in which application for certification is made, and in such subjects as are strictly supplementary thereto, as arranged and approved by the School of Education of this institution. (See *Annual Announcement of the School of Education,* Part VII.)

3. At least 23 of the 90 quarter units required to be given to the special subject or subjects must have been devoted to the study of the pedagogical subjects suited to the training of a secondary-school teacher, at least 6 units of which must have been devoted to practice teaching, including methods of instruction in the special subject or subjects, under competent supervision. Ordinarily courses 155, 160, 195, 196, 199, and 201 must be included.

4. Time devoted in the secondary-school period to study or work in the special subject or subjects in which the candidate desires certification may be substituted at the rate of half-time for similar studies or work in the collegiate period. Such substitution, though, shall not exceed one-half of the total time required in the special subject or subjects.

Successful experience in teaching may be substituted for part of the required pedagogical work, but all such substitutions are subject to determination by the School of Education in individual cases. Application for such substitutions must be made to the School of Education (Form B).

5. For Preliminary Certificates

Recommendations for Preliminary Special or Preliminary Regular High School Teacher's Certificates, authorizing the holder to do cadet teaching, without salary, in any secondary school in the county, are also granted to those enrolled for Practice in Teaching, Education 28. Those wishing to do practice teaching in elementary schools secure the recommendation for such preliminary certificates through the County Superintendent of Schools, on the recommendation of the Director of Practice Teaching.

Application for a Teaching Credential

1. When any student has spent the requisite time in study at this University, and has completed the prescribed program of studies in Majors and Minors for the High School Teacher's Recommendation, or the special course of study required by the School of Education and by the regulations of the state for an Elementary-School, a Junior High-School, or a Special or Vocational Type of Teacher's Recommendation, or the requirements for recommendation for certification in some other state, such student must make application for the type of Recommendation for a certificate desired, and leave such application with the Secretary to the School of Education, in Room 52. The Recommendation desired will be granted only after the application has been approved by the Committee on Credentials and Degrees of the School of Education.

2. All Teacher's Recommendations for the High School Certificate in California will state on their face the particular Majors and Minors which the holder has made special preparation to teach, and holders of the old form of general recommendation will be permitted to have their preparation and teaching experience adjudged in terms of the new standards for Majors and Minors, and to exchange the old forms of recommendation for the new.

3. Whenever the holder of any Recommendation for either a regular or a special High School Certificate, specifying Majors and Minors or special subjects on its face, shall by further study build up Minors into Majors, or add new Majors or Minors or special subjects, such addition shall be recorded on the face of the Teacher's Recommendation.

APPOINTMENT OFFICE

The Appointment Secretary is a member of the President's executive staff, with offices in the Administration Building. The duties of this secretary are briefly as follows:

1. To assist students and graduates of the University to obtain permanent employment or promotion in the kind of work for which they have prepared themselves.

2. To help students of the University who are earning part or all of their own expenses to find suitable part-time employment.

3. To help students who wish it to find full-time temporary employment, whether the purpose be merely to earn money or to become more proficient in their chosen field of work.

4. To give students and graduates who make inquiries, as accurate information as possible regarding the actual opportunities presented by the different fields of employment. The investigation which this work involves is an important feature of the Appointment Secretary's duties.

Statistics covering the work accomplished are compiled annually.

The Appointment Secretary aims to secure and keep on file a complete record of the education, experience, and personal qualifications of each candidate for a permanent position, to be used by prospective employers in determining whether or not the candidate is qualified for the position to be filled. That the statements made may be frank and reliable, they are never shown to candidates.

The University reserves the right of refusing to extend its coöperation to candidates who apply for positions for which they are manifestly unfit.

Forms for registration may be obtained of the Appointment Secretary upon request. When asking for forms it is necessary to state whether part-time, temporary, or permanent employment is wanted, and, in the case of permanent employment, whether teaching or some other profession.

Teachers must renew registration annually, preferably in January. Those desiring other kinds of permanent employment should renew their registration the first of every month—particularly the first of September, which is the beginning of the academic year. Those seeking part-time or temporary employment must renew registration at the beginning of each quarter. The responsibility of renewing registration is placed upon the candidate.

New students who expect to earn part or all of their expenses at the University, should apply to the Appointment Secretary for registra-

tion forms as soon as they are sure they will be admitted to the University.

Candidates for permanent positions are charged $1.50 at the time of registration. This sum covers the actual cost of collecting records. A small charge is also made for editing, copying, and mailing records. All classes of candidates are charged for telephonic and telegraphic bills incurred in their behalf. No charge is made for other services rendered candidates for part-time or temporary work, and no charge is made for the securing of positions of any kind.

All communications should be addressed to The Appointment Secretary, Stanford University, California.

COURSES OF INSTRUCTION

[*The asterisk* (*) *indicates that the course is repeated for the quarter named; otherwise courses announced for more than one quarter are presumably continuous. Courses numbered from 1 to 99 inclusive are primarily for lower division undergraduates; from 100 to 199 inclusive, for upper division undergraduates; from 200 to 299 inclusive, for graduate students. Teacher's courses which count toward fulfilling the requirement in education established by the State Board of Education for the high school teacher's credential, are ordinarily given the number 200; when other numbers are used they are followed by the letter E. The enrollment in the various courses is printed in italics at the end of the descriptive matter.*]

ANATOMY

Arthur William Meyer, Charles Haskell Danforth, Frank Mace McFarland, Professors.
Clara S. Stoltenberg, Associate Professor.
Herlwyn R. Green, Teaching Assistant.
Emily M. Bartlett, Assistant.

Required Courses

101. General Histology and Microscopic Anatomy.—A course dealing with the elementary structure and vital activities of the animal cell, the histology and development of the tissues, and their combination into the organs of the Vertebrates, with especial reference to the Mammalia. Elementary histological technique is taught during the course. Open to medical students, and to others properly prepared, so far as laboratory space permits.

4 units, autumn and winter quarters (McFarland) Lec. by arrangement, Lab. (autumn) MT 9–12, W 1:05–4:05; (winter) MTTh 1:05–4:05
autumn, 39; winter, 37; spring, 1

102. Osteology.—Students will be expected to familiarize themselves thoroughly, on their own initiative, with the surface anatomy of the bones of the skeleton. This individual work will be supplemented by the laboratory study of special aspects of the subject under the supervision of instructors. Not given as a separate course, but in connection with courses 103–5. Students should, however, enroll separately for this work, to which 3 units of credit are assigned. (Meyer, Danforth)
spring, 36

103–4–5. Dissection of (103) the Head, Neck, and Thorax; (104) the Upper Extremity; (105) the Abdomen and Lower Extremity.—No one will be assigned to less than one of the above parts nor will credit be given for less, save by special arrangement.

8, 3, 6 units (respectively), autumn, winter, and spring quarters. (Danforth, Green, Meyer) (autumn and winter) Lab. MTWThFS 9–12; (spring) Lab. MTW 1:05–4:05, ThFS 9–12
autumn, 51; winter, 52; spring, 44

206. Neurology.—A study of the structure of the central nervous system of man by means of dissections and prepared slides, supplemented by dissections of the central nervous system of other mammals.
5 units, autumn and *winter quarters (STOLTENBERG)
Lec. TTh 8, Lab. MWF 8–11
autumn, 24; winter, 17; spring 1

OPTIONAL AND ADVANCED COURSES

107. Cytoloy.—The course deals with the structure and functions of the animal cell with special reference to the reproductive processes. Lectures, laboratory work, and assigned reading. Open to those who have had courses in Histology, Embryology, and Microscopic Technique.
3 to 5 units, spring quarter (MCFARLAND) [Not given in 1922–23]

108. Special Courses.—Advanced Courses in Histology, Histogenesis, Microscopic Anatomy, Cytology, or Microscopic Technique will be planned to suit the needs of individual students. Open to those who have had courses in Histology and Embryology.
2 to 5 units, spring quarter (MCFARLAND) [Not given in 1922–23]

109. Topographical Anatomy.—The work consists of the laboratory study of frozen sections of fetal, infantile, and adult cadavers made in various planes, and of dissected and specially injected preparations, supplemented by models and atlases. It is suggested that students who can afford the time supplement courses 103–5 by the respective portions of course 109 immediately on completing the dissection of a part. Open to students who have completed courses 101–105.
2 to 5 units (MEYER) By arrangement

110. Anatomy of the Sense Organs.—A study of the sense organs by means of dissections and prepared slides, supplemented by models and prepared dissections.
2 to 4 units, autumn and *winter quarters (STOLTENBERG)
(autumn) TTh 8–11, (winter) by arrangement
autumn, 7; spring, 1

111. Physical Anthropology.—Practical instruction in anthropometric methods, and lectures on anatomical variation and heredity in man.
(DANFORTH) By arrangement

112. Human Embryology.—This course will be offered as soon as adequate provision can be made. Course 106 in the Department of Zoology is a prerequisite.

213. Investigation and Special Work.—The facilities of the laboratory are always at the disposal of properly qualified students or physicians who desire to undertake the investigation of some problem in gross or microscopic anatomy or in embryoloy. This work must be arranged for individually, but may begin at any time.
autumn, 1; winter, 3; spring, 1; summer, 3

214. Conferences in Anatomy.—Special topics are assigned and outlines and references provided for discussion.
3 units (MEYER) By arrangement
winter, 23

REQUIREMENTS FOR ADVANCED DEGREES.—In addition to the requirements published in the University *Register* and the *Announcement of the School of Medicine*, students desiring to be admitted to candidacy for the degree of Master of Arts in Anatomy must have satisfactorily completed one year's work in histology and microscopic anatomy, at least one

quarter of embryology, and possess a knowledge of laboratory technique adequate for the investigation to be undertaken. For admission to candidacy for the degree of Doctor of Philosophy a reading knowledge of both French and German is further required.

Deposit Fees.—A deposit of $2.50 for microscopes and of $10 to cover damage to or loss of bones, is required of all students registering in gross and in microscopic anatomy. This sum, less charges for damage or loss, is refunded only at the close of the academic year, except in the case of students discontinuing work. Such may obtain the refund at the end of the quarter. Students who are not registering in medicine are charged a fee of $15 for each of courses 103–5, and $5 for each of the other courses, except 213 and 214.

APPLIED MATHEMATICS

Leander Miller Hoskins, William Albert Manning, Halcott Cadwalader Moreno, Sidney Dean Townley, Professors.
Robert Nicolas Wenzel, Instructor.

The courses of instruction offered by the Department of Applied Mathematics fall into two groups. The first group consists of strictly mathematical courses planned primarily to meet the needs of students of Engineering, the second of courses in Astronomy and Geodesy.

In the courses preparatory to Engineering the aim is to make the instruction practical in the sense of furnishing thorough drill on fundamental principles and much practice in their application. Emphasis is laid upon accuracy and system in the solution of numerical problems. Students whose training in arithmetical work has been deficient, or who are otherwise inadequately prepared, or who lack aptitude for mathematical study, can not pursue these courses successfully.

Students intending to major in any engineering department should have entrance credit in the preparatory subjects of algebra (two units), plane and solid geometry, and plane trigonometry. This preparation is regularly required for admission to any of the following courses except Descriptive Astronomy.

The mathematics regularly required of students in Engineering consists of courses 1, 2, and 3. Each of these courses runs two quarters, 5 unit-hours per quarter, and they will regularly be taken in the order *1a, 1b, 2a, 2b, 3a, 3b*. It is possible, however, to take *2b* and *3a* simultaneously, but this can be permitted only in the case of students having thoroughly satisfactory records in the preceding courses. Students whose preparatory records show excellence, not only in mathematics, but in general training, may, with the approval of the instructor, enter course *1b* without having taken *1a*.

1. Elementary Analysis.—This course presupposes a familiarity with the elements of algebra and trigonometry, and is designed to strengthen the command of the student over these subjects and to give him a working knowledge of the method of coördinate geometry. Readiness in the application of the fundamental principles of algebra, trigonometry, and geometry to the solution of numerical problems is of fundamental impor-

tance to the engineer, and this side of the work is emphasized throughout the course.

1a. First half of course 1.
5 units, autumn, *winter, and *summer quarters (MANNING, MORENO, WENZEL, BARNETT)
autumn, 27, 23, 27; winter, 35; summer, 13

1b. Second half of course 1.
5 units, winter, *spring, and *autumn quarters (MANNING, MORENO, WENZEL)
autumn, 30, 25; winter, 29, 29; spring, 43

2. Calculus.—An elementary course in Differential and Integral Calculus in which emphasis is laid on fundamental principles and simple applications.

2a. First half of course 2.
5 units, spring, *summer, *autumn, and *winter quarters (MORENO, MANNING, WENZEL)
autumn, 37; winter, 25, 18; spring, 28, 19; summer, 10

2b. Second half of course 2.
5 units, autumn, *winter, *spring, and *summer quarters (MANNING, HOSKINS, MORENO)
autumn, 48, 28; winter, 48; spring, 29, 25; summer, 4

3. Theoretical Mechanics.—An elementary course, covering the fundamental principles of Statics, Kinematics, and Kinetics, restricted mainly to coplanar forces and to plane motion of particles and of rigid bodies. The course is designed as preparation for the courses in Applied Mechanics taken by students of Engineering, but is open to all whose preparation includes the equivalent of courses 1 and 2.

3a. First half of course 3.
5 units, winter and *spring quarters (HOSKINS) (winter) MTWThF 10
(MANNING) (spring) MTWThF 10
winter, 83; spring, 20

3b. Second half of course 3.
5 units, spring and *autumn quarters (HOSKINS) MTWThF 10
autumn, 24; spring, 77

100. Engineering Mathematics.—This course is designed to meet the needs of students in Electrical Engineering, and should be taken by those intending to take course 10 in Electrical Engineering.
3 units, autumn quarter (MORENO) By arrangement
autumn, 12

101. Nomographs.—An elementary course on the construction and use of nomographs, including some other graphical methods.
2 units, autumn quarter (MORENO) [Not given in 1922–23]

201. Graduate Courses.—Advanced courses in Theoretical Mechanics, Hydromechanics, Theory of Heat, Theory of the Potential Function, Theory of Elasticity, or other subjects, may be arranged for students having the requisite mathematical training.

ASTRONOMY AND GEODESY

The course in Descriptive Astronomy is designed especially to meet the needs of students who have time for only a general knowledge of the subject. Course 150 is designed especially for students of Engineering and Geology who desire a working knowledge of practical astronomy. The other courses are intended for students of Mathematics or Civil Engineering who wish to prepare themselves for geodetic work.

50. Descriptive Astronomy.—This course consists of a general survey of the various branches of astronomy, including a study of the celestial sphere, the bodies of the solar system, comets, the fixed stars, and other heavenly bodies. The treatment is non-mathematical.

5 units, autumn and *summer quarters (Townley)
autumn, 20; summer, 23

51. Observational Astronomy.—Study of constellations and various astronomical bodies: Elementary methods of determining latitude and longitude. One afternoon or evening per week. Supplementary to course 50.

1 unit, autumn quarter (Townley)
autumn, 7

150. Practical Astronomy.—The theory and practice of the determination of latitude, azimuth, time, and longitude, with sextant and engineer's transit. Intended especially to meet the requirements of students of civil engineering, geology, and navigation. Course 1, differential calculus, and surveying are prerequisites.

3 or 4 units, spring quarter (Townley)
spring, 5

151. Advanced Practical Astronomy.—A continuation of course 150. Precise methods of determining time, latitude, etc., by means of the universal instrument.

Any quarter (Townley) Hours and units by arrangement
spring, 1

152. Adjustment of Observations.—Theory of the method of least squares, with applications. Credit in course 2 or its equivalent is a prerequisite.

3 units, winter quarter (Townley) By arrangement

153. Geodesy.—Study of the form and dimensions of the earth and the practical methods of geodetic work. Courses 150 and 152 are prerequisites.

3 units, spring quarter (Townley) [Not given in 1922–23]

154. Variable Stars.—Consideration of the different classes of variable stars, methods of observation and construction of light curves. Course 50 is a prerequisite.

3 units, spring quarter (Townley)
spring, 3

155. Celestial Mechanics.—A study of the motions of the bodies of the solar system under Newton's universal law of gravitation. Courses 1, 2, 3, 50 in Applied Mathematics and course 150 in Mathematics are prerequisites.

3 units, winter quarter (Townley)
autumn, 1

BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

Wilfred Hamilton Manwaring, Professor.
William Ludlow Holman, Edwin William Schultz, Associate Professors.

1. General Bacteriology.—A survey of the field of bacteriology, including pathogenic forms. The course is designed primarily for nurses, teachers, social workers, industrial chemists, and those desiring a general knowledge of the subject. Not open to pre-medical students. Prerequisites: General Biology and General Chemistry, or equivalents.
6 units, spring quarter (SCHULTZ) Lec. MW 8; Quiz F 8; Lab. MWF 9–12
spring, 5

2. Anatomy and Physiology of Disease.—Non-technical lectures in Elementary Pathology, dealing with such topics as: The Nature of Disease, Curative Forces of the Body, Methods of Diagnosis, Methods of Treatment, Popular Remedies, Patent Medicines, etc. Not open to first-year students.
1 unit, autumn quarter (MANWARING) [Not given in 1922–23]

3. Hygiene of Infectious Diseases.—Non-technical lectures in Bacteriology, with special reference to the application of bacteriological methods to the prevention and control of infectious diseases. Not open to first-year students.
3 units, spring quarter (SCHULTZ) MWF 8
spring, 114

201. Medical Bacteriology.—Prerequisites: 165 units of university work (135 units for department majors), including Anatomy 101, Chemistry 112, 125, 141, 142, Physiology 103 and 104, or equivalents.
10 units, autumn quarter (HOLMAN) Lec. MTWThF 8; Lab. M 9–12, TWThF 9–11
autumn, 38

202. Experimental Bacteriology.—An advanced course in bacteriological methods, including the use of animals, special apparatus, etc. Prerequisite: course 201.
2 units, winter quarter (HOLMAN) [Not given in 1922–23]

203a. Principles of Immunity.—An introductory course of lectures on immunity and serologic methods. Prerequisite: course 201.
2 units, winter quarter (MANWARING) [Not given in 1922–23]

203b. Elementary Serology.—A laboratory study of antitoxins, bacteriolysins, hemolysins, agglutinins, precipitins, opsonins, complement deviation, anaphylaxis, etc., designed to accompany course 203*a*.
6 units, winter quarter (MANWARING) [Not given in 1922–23]

204. General Pathology (a).—Continuous with General Pathology (*b*), Department of Pathology, San Francisco, or Bacteriology 205. The course is given from the experimental point of view and covers circulatory disturbances, degenerations, pigmentations, acute inflammations, and regenerations. Prerequisite: course 201.
6 units, winter quarter (SCHULTZ) Lec. MW 1; Quiz F 1; Lab. MWF 2–4
winter, 42

205. General Pathology (b).—This course covers inflammations, granulomata, and tumors, and is also presented as much as possible from the experimental point of view. Prerequisite: courses 204 and 205, or equivalents.
6 units, spring quarter (SCHULTZ) Lec. MW 1; Quiz F 1; Lab. MWF 2–4 [Not given in 1922–23]

206. Experimental Pathology.—An advanced course in General Pathology, dealing with the production and study of typical pathological

lesions in animals, including histopathologic technique; a study of the literature, and conferences. Prerequisite: course 204.

6 units, spring quarter (SCHULTZ) By arrangement
winter, 1

207a, 207b. Pathological Physiology.—Designed to accompany the introductory course in Physical Diagnosis. Subject matter presented from the experimental point of view. (*a*) Winter Quarter: Cutaneous and mesoblastic sensations, skeletal muscle, circulation, respiration, digestion, and absorption. (*b*) Spring Quarter: Metabolism, internal secretion, heat regulation, excretion, reproduction, special senses, psychical processes.

3 units, winter and spring quarters (MANWARING) [Not given in 1922–23]

208. Experimental Functional Pathology.—A series of surgical operations and kymograph experiments on dogs; the production and study of typical pathological physiological conditions. Prerequisite: course 207*a*.

5 units, spring quarter (MANWARING) [Not given in 1922-23]

209. Journal Club.—A study of current literature in the subjects covered by the department, with oral or written reports at one or more of the weekly meetings. The work is done under the staff member in charge of the particular field in which the student is interested. Prerequisites: courses 201, 203*a*, and 204.

2 units, autumn, winter, or spring quarter (DEPARTMENT STAFF) By arrangement

210. Advanced Work, Medical Thesis, Research.

5 to 10 units, any quarter (DEPARTMENT STAFF) By arrangement
autumn, 2, 2, 8; winter, 2, 3, 7; spring, 1; summer, 1

FEES.—Course 201, $30; courses 1, 203*b*, 204, and 205, $15 each; courses 206 and 208, $10 each. Students pay for breakage and animals used.

LOWER DIVISION PREREQUISITES.—The completion of the following Lower Division courses, or their equivalents: Physics 1, 2, 3, 20; Chemistry 7, 9 (or 1, 2, 3), 4, 20, 112 and 125 (if possible); Botany 3 (if possible); Zoology 1 (or General Biology 1, 2, 3), 104; reading knowledge of French or German.

RECOMMENDED DEPARTMENTAL CURRICULUM.—Third year: Chemistry 121, 122, 123 (or 127), Anatomy 101, Physiology 103, 104, Chemistry 141, 142, or equivalents. Fourth year: Bacteriology 201, 202, 203*a*, 203*b*, 204, 205, 209, 210, or equivalents.

ADVANCED DEGREES.—Applicants for the degree of Master of Arts in Bacteriology and Experimental Pathology will be expected to complete in addition to the requirements for the Bachelor's degree, the equivalent for forty-five units work in the University, of which approximately two-thirds must be in the Department. The departmental work will include a thesis based on laboratory work, and courses 203*a*, 203*b*, 204, 205, and 209, if not included in the undergraduate work.

Candidates for the degree of Doctor of Philosophy in Bacteriology and Experimental Pathology, after the completion of the equivalent of the requirements for the Master of Arts, will follow such courses as are approved by the Department, subject to general University regulations.

BIBLICAL HISTORY AND LITERATURE

DAVID CHARLES GARDNER, Chaplain, Lecturer.
HENRY RUSHTON FAIRCLOUGH, AUGUSTUS TABER MURRAY (Classical Literature), HENRY DAVID GRAY (English).

3. The Religion of the Jew.—A study of Old Testament religion and ethics.
2 units, autumn quarter (GARDNER) TTh 11
autumn, 16

4. Life of Christ.—A history of the life and times of Jesus. Lectures, discussions, and papers.
1 unit, winter quarter (GARDNER) Th 11
winter, 19

5. The Ethics of Christ.—An analysis of Christian Ethics as disclosed in the gospels. The application of Christ's teaching to modern life.
1 unit, spring quarter (GARDNER) Th 11
spring, 35

[**New Testament.**—Review of Greek grammar; reading of the Gospel of Mark and Acts of the Apostles. (Classical Literature A2*c*.)
3 to 5 units, winter quarter (MURRAY) [Not given in 1922–23]

[**New Testament Literature.**—Lectures on certain books of the New Testament. Open to students above the first year. (Classical Literature C35.)
2 units, autumn quarter (FAIRCLOUGH) MW 9]
autumn, 17

[**New Testament Literature.**—Lectures on the origin, authorship, and characteristics of certain books of the New Testament. Peake's Critical Introduction is used as a handbook. (Classical Literature C36.)
3 units, spring quarter (MURRAY) [Not given in 1922–23]

[**English Bible.**—Representative portions of the Bible studied as literature. Not open to first-year students. (English 24.)
3 units, autumn quarter (GRAY) [Not given in 1922–23]

BIOLOGY

SCHOOL OF BIOLOGY

The School of Biology includes the following departments, from whose listed courses elections covering the requirements named below are to be made: Anatomy, Bacteriology and Experimental Pathology, Biochemistry, Botany, Entomology, Food Research, Hopkins Marine Station, Paleontology, Physiology, Psychology, and Zoology.

The requirements for the A.B. degree in Biology are as follows: Sixty units of work in Biology, so chosen that there shall be fifteen units from each of three departments of the School. Provision is made for modifying the fifteen unit departmental requirement to the effect that upon completion of ten units in any department the student may substitute work in another department upon securing the consent of both departments concerned and of his adviser in the School. The general program must be properly approved. Students are urged to include a summer quarter of work at the Hopkins Marine Station.

GENERAL BIOLOGY

Administrative Committee: Leonas Lancelot Burlingame (Executive Director), Harold Heath, Ernest Gale Martin, George James Peirce.

These courses attempt to present to beginners by means of lectures, illustrations, demonstrations, and laboratory exercises the fundamentals of Biology in its broadest sense. They include a study of: (1) Protoplasm, the common living substance of all plants and animals; (2) The organization of cells and their combination into multicellular organisms; (3) The role of green plants in the manufacture of foods; (4) The transformation of foods into the living substance of plants and animals; (5) The liberation and utilization of the chemical energy of foods, chiefly by animals; (6) The sensitivity of protoplasm and its role in correlating the internal processes of the organism on the one hand and relating and adjusting it to its environment on the other; (7) Disease and death of organisms; (8) The enrichment of the soil through the decomposition of organic remains and nitrogen fixation; (9) The perpetuation of the species through reproduction; (10) The laws and mechanism of heredity; (11) Evolution and adaptation of organisms; (12) The factors controlling the ecological and geographical distribution of organisms; and (13) Man's place in nature.

In the laboratory course representative one-celled and many-celled plants and animals are studied with special emphasis on the nature and organization of protoplasm. The organism is examined in its character of chemical machine, synthesizing complex compounds, as in green plants, and decomposing them with liberation of energy, as in animals. Finally the relations of living things to their non-living environment and to each other are considered.

No prerequisites, and required of all Lower Division students who do not present a high-school equivalent or elect an equal amount of work in one of the biological departments. (See requirements under Biology in *Announcement of Lower Division.*) Nine units as follows :

1. General Biology.—Lectures.
3 units, autumn and *winter quarters (Burlingame, Doane, Heath, Martin, Peirce, Wilbur) (autumn) MWF 8; (winter) TThS 8
autumn, 252; winter, 111

2. General Biology.—Laboratory.
3 units, autumn, *winter, and *spring quarters (Vestal, Becking, and assistants) MWF 1–4, or TTh 1–4 and S 8–11
autumn, 64, 58; winter, 58, 57; spring, 59

3. General Biology.—Lectures.
3 units, winter and *spring quarters (Abrams, Burlingame, Fisher, Heath, Martin, Terman, Vestal, Wilbur) MWF 8
winter, 209; spring, 174

ECONOMIC BIOLOGY

Lawrence Becking, Assistant Professor.
[With the coöperation of Dr. C. L. Alsberg and Dr. G. J. Peirce.]

10. Cultural Botany.—A lecture course, dealing with the general relations of plants to mankind. The plants of the ancients; plants and dis-

covery, conquest and colonization; historical and cultural significance of food, dyes, drugs, spices, poisons, and other plant products. Open to all students.

2 units, winter quarter (BECKING) [Not given in 1922–23]

101. Economic Botany.—A general survey of the subject, chiefly dealing with the more general aspects of a technical study of plant foodstuffs, fibres, wood, drugs, dyes, poisons, spices, resin, rubber, etc. The laboratory work includes some standard methods of microscopical and microchemical analysis of economic plant products. Prerequisites: 9 units of chemistry and one laboratory course in biology.

5 units, autumn quarter (BECKING) [Not given in 1922–23]

201. Economic Botany: Special Problems.—To meet the requirements of the individual student who wants to carry out advanced work in this line either as a major in Botany, Chemistry, Economics, or Civil Engineering (lumber).

(BECKING) [Not given in 1922–23]

BOTANY

DOUGLAS HOUGHTON CAMPBELL, LEROY ABRAMS, GEORGE JAMES PEIRCE, Professors.

LEONAS LANCELOT BURLINGAME, Associate Professor.

JAMES IRA WILSON MCMURPHY, Assistant Professor.

[With the coöperation of Assistant Professor BECKING of the Department of Physiology.]

The Department of Botany aims to provide instruction for two classes of students: (*a*) Students who wish to know something of the structures, life processes, relationships, and uses of plants, and to gain some familiarity with the methods of scientific work; and (*b*) Professional students who look forward to investigation, teaching, or the technical applications of Botany in Plant Breeding, Forestry, Agriculture, Horticulture, Plant Pathology, etc. Courses 1, 2, 3, which present the elements of the more important divisions of botanical study, are designed to meet the needs of both groups of students and must precede all other courses in the department, except in the case of students who have received equivalent instruction elsewhere. Courses 10 to 113 are open to students who have had courses 1, 2, or 3, or the equivalent. It is the aim of these courses to give the student, by means of lectures and references to the literature, a general and summary account of the present state of knowledge, and in the laboratory and the field to afford him an opportunity for a personal acquaintance with plants themselves. Students who have had two or more years' work may, after consultation, be registered in courses 114, 120, 130, 142, 152. The resources of the department afford exceptional opportunity for investigation in a number of fields. Properly qualified students desiring to undertake such investigation should register in courses 210, 220, 230, 240, 250, after consultation with the instructor concerned.

Major students in the department will be expected to complete 60 units in the department, and Zoology 1. The sixty units should include

courses 1, 2, 3, 10, 11, 20, 21, 110, 111, 30, 31, 140, 141. It is strongly recommended that courses 10, 11, 110, 111 be taken in the second year.

The TEACHER'S RECOMMENDATION in the University is based on the satisfactory completion of a minimum of two majors, or one major and two minors. A minor in Botany consists of Elementary Botany (courses 1, 2, 3) and one advanced course, chosen from the following: 20, 110, 30, 140, 141. A major must include the following: Elementary Botany (1, 2, 3), General Fungi (20), General Morphology (10, 11, 110, 111, 112), Systematic Botany (30), Physiology (140 or 141), a total of 35 units.

Students looking to Forestry or Agriculture as a profession should include courses 20, 22, 30, 31, 140, 141 as part of their preparation, and the following subjects in other departments: elementary physics, chemistry, geology and physiography, zoology, entomology, economics, and applied mathematics. They should also be able to read French and German.

Fees are charged in the various courses approximately sufficient to cover the cost of the perishable materials and syllabus used, as follows: Courses 1, 2, 3, 10, 11, 110, 111, 112, 30, 31, 151, 120, 114, 130, 152, 210–250, $3.00 each; courses 20, 21, 22, 140, 141, 113, 142, $5.00 each; 150, $1.00.

[**General Biology.**—See under Biology, p. 140.]

1. Elementary Botany: Morphology.—This course is designed to be a foundation course. It aims to present a comprehensive view of the entire plant kingdom from the lowest to the highest. The individual types studied will be chosen with reference to their suitability to illustrate the larger steps through which plants have passed in the course of evolution. Campbell's "A University Text-Book of Botany" is used as the principal text and should be owned by, or at least be available to, every student. References to other books will be given whenever advisable and such supplementary reference books will be kept on a shelf in the laboratory and will not be permitted to be taken from the room. The hour preceding the lecture on Tuesdays and Thursdays will be spent in the laboratory, in study and conference under supervision.

5 units, autumn and *summer quarters (CAMPBELL, BURLINGAME, and assistants) Conference TTh 1:05; Lec. TTh 2:05; Lab. MWF 1:05–3:45
autumn, 44; summer, 33

2. Elementary Botany: Systematic.—Study of the fundamental principles of plant relationships, with special reference to the higher plants. Through the study of representative species and supplementary classification, it is intended to acquaint the student with the more important families of flowering plants.

5 units, winter quarter (ABRAMS, and assistants)
Lec. TTh 1:05; Lab. MWF 1:05–3:05
winter, 54

3. Elementary Botany: Anatomy and Physiology.—Study of the structure, mainly of the land plants, with a view to understanding the vital processes of living plants and their relations to man. The laboratory work will be supplemented by field work.

5 units, spring quarter (PEIRCE, and assistants)
Lec. TTh 1:05; Lab. MWF 1:05–3:45
spring, 22

10. Fresh-Water Algae.—Lectures, readings, and laboratory work on the morphology and classification of Blue-Green and Green Algae. Prerequisite: Botany 1.
5 units, winter quarter (CAMPBELL) [Not given in 1922–23]

11. Marine Algae.—Lectures, readings, and laboratory work on the morphology and classification of the Brown and Red Algae. This course is a continuation of course 10, but may be taken independently. Prerequisite: Botany 1.
5 units, spring quarter (CAMPBELL) [Not given in 1922–23]

20. General Fungi.—Lectures and laboratory work on the morphology and classification of Fungi. Prerequisite: Botany 1.
5 units, autumn quarter (MCMURPHY) Lec.-Lab. MTWThF 1:05–3:45
autumn, 7

21. Fleshy Fungi.—Lectures, laboratory, and field work on the fleshy Fungi ordinarily known as mushrooms, toadstools, etc. Prerequisite: Botany 1.
5 units, winter quarter (MCMURPHY) Lec.-Lab. MTWThF 1:05–3:45
winter, 2

22. Plant Pathology.—Lectures, laboratory, and field work on fungous and other plant diseases. Open only to students who have had course 20 or its equivalent.
5 units, spring quarter (MCMURPHY) Lec.-Lab. MTWThF 1:05–4:05
spring, 1

30. Systematic Botany.—Classification of the flowering plants with special emphasis on the more complex and difficult groups. Prerequisite: Botany 2 or its equivalent.
5 units, spring quarter (ABRAMS)
spring, 8

31. Geographical Distribution and Forest Botany.—Study of the trees and shrubs, and the principles of geographical distribution which they illustrate. The laboratory work will be supplemented by work in the field and in the Arboretum.
5 units, autumn quarter (ABRAMS)
Lec. W 1:30; Lab. and Feld Work MTThF 1:30–4

110. Bryophytes.—Lectures and laboratory work on the special morphology and classification of the Bryophytes (Mosses). Prerequisite: Botany 1.
5 units, winter quarter (CAMPBELL)
winter, 9

111. Pteridophytes.—Lectures and laboratory work on the special morphology and classification of Pteridophytes (Ferns, Horsetail, Club-mosses). This course is a continuation of course 110. Prerequisite: 1 and 110.
5 units, spring quarter (CAMPBELL)
spring, 5

112. Seed Plants.—Lectures and laboratory work on the general morphology and anatomy of Gymnosperms and Angiosperms. This course is intended to continue and round out the work of courses 10, 11, 20, 110, 111. It aims to give the student an insight into the origin and relationships of the larger groups of Seed Plants through a study of their Morphology, Embryology, and Comparative Anatomy. Prerequisite: courses 1 and 110, or 111.
5 units, winter quarter (BURLINGAME) By arrangement

113. Cytology and Technique.—1. Lectures on the structures and functions of the cell, with special reference to the mechanism of inheritance and the practical consequences thereof in plant breeding. 2. Laboratory exercises in (*a*) histological and cytological technique (killing and fixing, embedding, sectioning, staining, etc.), (*b*) study of selected slides illustrating the lecture topics, mitosis, gametogenesis, sporogenesis, etc.

5 units, winter quarter (BURLINGAME) By arrangement
winter, 1

114. Advanced Archegoniates.—This course offers opportunity for individual students to continue (along lines of special interest) the work begun in course 110 or 111. Prerequisites: Elementary Botany and course 110 or 111, or equivalents.

(CAMPBELL) By arrangement
summer, 3

120. Advanced Plant Pathology.—Field and laboratory work on special diseases.

(MCMURPHY) Hours and credit by arrangement
autumn, 3; winter, 2; spring, 4

130. Advanced Systematic Botany.—Special problems in taxonomy and geographical distribution, with reference to methods of investigation. This course is intended primarily as preliminary training for research work in systematic botany.

(ABRAMS) Hours and credit by arrangement
winter, 2; spring, 2

140. Experimental Plant Physiology.—The production and use of foods. Lectures, laboratory work, and reading. Prerequisite: 3 or its equivalent. Knowledge of the elements of physics and chemistry is essential.

5 units, autumn quarter (PEIRCE)
autumn, 8

141. Experimental Plant Physiology.—Lectures, laboratory work, and reading. Prerequisite: course 3 or its equivalent. Knowledge of the elements of physics and chemistry is essential.

5 units, winter quarter (PEIRCE) Lec. TTh 9; Lab. MWF 8–10
winter, 6

142. Advanced Physiology.—Experimental study of a single problem by one or more individuals. Prerequisites: Elementary Botany and courses 140 and 141, or their equivalents.

(PEIRCE) By arrangement
autumn, 2; winter, 2; spring, 2, 1

150. Genetics.—Lectures on Inheritance in plants, animals, and man. Prerequisite: Botany 1, Zoology 1, General Biology, or equivalents.

3 units, spring quarter (BURLINGAME) MWF 10

151. Plant Breeding.—Garden and laboratory work illustrative of the principles and practices underlying modern practice in the propagation and improvement of plants. Prerequisite: Botany 1, Zoology 1 or General Biology, Botany 150, or equivalents.

2 units, spring quarter (BURLINGAME)
spring, 3

152. Problems in Genetics and Plant Breeding.—This course offers an opportunity to continue advanced work along the lines of course 151.

Any quarter (BURLINGAME) By arrangement

210. Research in Morphology.—Students desiring to do original investigation in morphology must have had adequate training in the appropriate courses in special morphology or their equivalents.
(Campbell) By arrangement
autumn, 1; winter, 1; spring, 1

220. Research in Plant Pathology.
(McMurphy) By arrangement
winter, 1; spring, 1

230. Research in Taxonomy and Geographical Distribution
(Abrams) By arrangement
winter, 1

240. Research in Physiology.
(Peirce) By arrangement

250. Research in Cytology and Genetics.—For students who wish to undertake original work in genetics or cytology. Prerequisites are an adequate training in general botany and such special courses as the nature of the work makes necessary.
(Burlingame) By arrangement
spring, 2

260. Seminar.
(Peirce, Becking)
autumn, 6; winter, 5

[**Economic Biology.**—See under Biology, p. 140.]

CHEMISTRY

John Maxson Stillman, Professor Emeritus.
Robert Eckles Swain, Edward Curtis Franklin, Lionel Remond Lenox, John Pearce Mitchell, Stewart Woodford Young, Professors.
Carl Lucas Alsberg, Director, Food Research Institute.
James Kendall, Acting Professor (Spring Quarter).
Albert Frederick Ottomar Germann, William Henry Sloan, Assistant Professors.
Marie Reimer, Lecturer (Spring Quarter).
Charles Doak Lowry, Jr., George Sutton Parks, Norris Watson Rakestraw, John Russell, Instructors.
Ruth Vivia Fulton, Laurence Francis Pratt, Alanson Wood McDermoth, Teaching Fellows.

1. Elementary Inorganic Chemistry, Lectures.—Comprising a systematic treatment of elementary principles and of the properties of the more important elements and their compounds. Open to all students; particularly for students without entrance credit in Chemistry. Students without entrance credit in Chemistry are required to enroll in laboratory course 2 concurrently.
3 units, autumn and *winter quarters
(autumn) Lec. MWF 8, (Mitchell); (winter) Lec. TThS 8, (Germann)
autumn, 104; winter, 51

2. Elementary Inorganic Laboratory.—In connection with course 1. Illustrating fundamental laws and principles of elementary chemistry.

Required of students who have not received entrance credit in Chemistry.
3 units, autumn and *winter quarters (MITCHELL, GERMANN, RAKESTRAW) MTW 1–4, or ThF 1–4, and S 9–12
autumn, 65

3. Elementary Inorganic Chemistry.—Continuation of Chemistry 1. Open to students who have had courses 1 and 2, or their equivalents.
3 units, spring quarter (RAKESTRAW) TThS 8
spring, 111

4. General Inorganic Laboratory.—Inorganic preparations and general chemistry. For students with entrance credit or Chemistry 2.
3 units, every quarter (MITCHELL, GERMANN, RAKESTRAW) MTW 1–4, or ThF 1–4, and S 9–12
autumn, 57; winter, 57; spring, 83; summer, 22

7. General Inorganic Chemistry.—Lectures reviewing elementary principles and covering a systematic treatment of important theories and the properties of the more important elements and their compounds. Open only to students who have offered entrance credit in Chemistry or its equivalent.
2 units, autumn and *summer quarters (MITCHELL, GERMANN) TTh 8
autumn, 143; summer, 21

9. General Inorganic Chemistry.—Continuation of Chemistry 7. Open to students who have completed course 7 or its equivalent.
2 units, winter and *summer quarters (MITCHELL, GERMANN) TTh 8
winter, 142; summer, 21

20. Qualitative Analysis, Lecture and Laboratory.—Open to students who have completed courses 3 or 9, and 4.
6 units, autumn, *winter, and *spring quarters (LENOX, BERGER) 5 afternoons
autumn, 61; winter, 19; spring, 54

101. Principles of Inorganic Chemistry.—Discussion of the elements of chemical theories and of important generalizations in the field of inorganic chemistry. Prerequisite: Chemistry 3 or 9, or an equivalent.
5 units, autumn quarter (SWAIN) MTWThF 11
autumn, 45

111. Quantitative Analysis.—Lecture course. Must be taken in conjunction with course 112.
1 unit, autumn, *winter, *spring, and *summer quarters (SLOAN, RUSSELL) TTh 3:05
autumn, 27; winter, 27; spring, 19; summer, 23

112. Quantitative Analysis.—Introductory. Training in manipulation in gravimetric and volumetric methods. Open to students who have completed course 20. Not open to first-year students. Given in conjunction with course 111.
4 or 5 units, autumn, *winter, *spring, and *summer quarters (SLOAN, RUSSELL) 4 or 5 afternoons
autumn, 29; winter, 24; spring, 19; summer, 23

114. Quantitative Analysis.—A continuation of course 112, principally gravimetric methods.
5 units, autumn, *winter, and *spring quarters (SLOAN, RUSSELL) 5 afternoons
autumn, 10; winter, 2; spring, 3

118. Advanced Quantitative Analysis.—Systematic mineral analysis and volumetric assays of ores of copper, lead, zinc, iron and manganese. Iron and steel analysis and the analysis of ferro-alloys. Open to students who have completed courses 112 and 114 and required of all students registering in division B (Analytical Chemistry).

Students majoring in other departments, who have completed courses 111 and 112 in Chemistry, may register for three units of work in this course, covering the volumetric portion only.

3 or 5 units, spring quarter (LENOX, BERGER) 3 or 5 afternoons

121. Organic Chemistry.—Lectures and reviews on the chemistry of carbon compounds. Open to students who have completed course 101 or its equivalent.

5 units, winter quarter (FRANKLIN) MTWThF 11

winter, 53

122. Organic Preparations.—Preparation and study of typical carbon compounds. Open in connection with courses 121 and 123 to students who have completed course 20.

5 units, winter, *spring, and *summer quarters (FRANKLIN, LOWRY) 5 afternoons

winter, 3; spring, 38; summer, 7

123. Organic Chemistry.—Continuation of Chemistry 121.

5 units, spring quarter (FRANKLIN) MTWThF 11

spring, 51

124. Advanced Organic Laboratory.—Combustion analysis, use of the chemical literature, special preparations. Open to students who have completed Chemistry 122, or equivalent, and who have a reading knowledge of German.

3 to 5 units, winter, *spring, and *summer quarters (LOWRY) Hours by arrangement

winter, 1; summer, 14

125. Advanced Organic Lectures.—Advanced topics in organic chemistry, including stereochemistry. Open to students who have completed courses 101, 121, 123.

3 units, spring quarter in alternate years (FRANKLIN) [Not given in 1922–23]

spring, 11

127. Elementary Organic Chemistry.—A condensed lecture course in organic chemistry, offered particularly for students in biology and medicine, but open to all students who have completed course 20. Not for Chemistry majors.

5 units, winter and *summer quarters (LOWRY) (winter) MTWThF 8; (summer) MTWThF 10

winter, 17; summer, 14

128. Organic Chemistry.—A laboratory course designed especially to accompany course 127. Not for Chemistry majors.

3 units, winter and *summer quarters (LOWRY) 3 afternoons

winter, 3; summer, 2

129. Selected Topics in Organic Chemistry.—Lectures covering advanced topics such as the organo-metallic compounds, condensation reactions, dynamic isomerism, asymmetric synthesis, with a review of current organic research in the laboratories of this country.

2 units, spring quarter (REIMER)

spring, 11

141. Biochemistry.—Lectures on the chemical composition and action of the tissues and secretions of the animal body, the digestion of foods, and the elimination of waste products. Open to students who have completed courses 121 and 123, or 127.

5 units, autumn and *summer quarters (SWAIN) MTWThF 8

autumn, 38; summer, 22

142. Biochemistry.—A laboratory course including a preliminary study of the proteins, carbohydrates, and fats, and the action of the various digestive fluids upon them; followed by a chemical examination of the bile, blood, milk, the chief tissues of the animal body, and the excretions. The latter half of the course is devoted to quantitative biochemical methods. In connection with course 141.

4 units, autumn and *summer quarters (SWAIN, RAKESTRAW) 4 afternoons
autumn, 39; summer, 15

143. Physical Chemistry of Vital Phenomena.—A lecture and laboratory course dealing with such subjects as the permeability of animal and plant membranes, osmotic pressure, cryoscopic measurements, colloids, hydrogen ion concentration, and similar topics. Particularly for students in biology and medicine. Two lectures and one laboratory period.

3 units, winter quarter (———) [Not given in 1922–23]

144. Special Methods in the Analysis of Blood and Urine.—Prerequisites: courses 141 and 142.

2 to 5 units, autumn, *winter, *spring, and *summer quarters (RAKESTRAW) 2 to 5 afternoons
autumn, 2; winter, 3; spring, 5

151. Advanced Inorganic Chemistry.—Advanced topics in inorganic chemistry, including the rarer elements, structure of the atom, radioactivity, catalysis, and the chemistry of the higher order compounds.

3 units, spring quarter (KENDALL) MWF 11
spring, 23

153. Chemical Calculations.—Consists of a series of problems designed to review the fundamental principles of analytical and theoretical chemistry. Open to juniors and seniors who have had courses 101, 111, 112. A series of more advanced problems will be given by arrangement.

3 units, spring quarter (MITCHELL) MWF 8
spring, 15

155. Organization of Chemical Research.—A seminar and reading course open to senior and graduate students, dealing with principles and practice involved in outlining and pursuing problems in research, and including a study of typical research problems from the original literature. Necessitates a fair reading knowledge of German.

2 units, autumn quarter (RAKESTRAW) By arrangement
autumn, 10

157. Chemistry of Gases.—A lecture course dealing with the history, preparation, purification, and physical and chemical properties of gaseous substances. Open to students who have completed course 101.

2 units, winter quarter (GERMANN) TTh 10
winter, 7

158. Manipulation of Gases.—A laboratory course, in which the student is expected to become familiar with methods of preparation and purification of gases and the designing of laboratory apparatus for the study of the properties of gases. Prerequisite: courses 111, 112.

2 or more units, winter and *summer quarters (GERMANN) 2 or more afternoons
winter, 2; summer, 1

171. General Physical Chemistry.—Lectures covering as far as possible the whole field of physical chemistry. Open to students who have completed Chemistry 101, 111, 112, 121, course 20 in Mathematics, and courses 1, 2, 3, 20, in Physics, or their equivalent.

5 units, autumn quarter (YOUNG) MTWThF 8
autumn, 36

173. General Physical Chemistry.—Continuation of Chemistry 171.
5 units, winter quarter (YOUNG) MTWThF 8
winter, 34

174. Physical-Chemistry Measurements.—Exercises in the practice of physical-chemical laboratory methods. Open to students who have completed or are taking courses 171, 173, and who have completed courses 112, 121, 122, and 123. In special cases and by special arrangement this course will be open to students who have completed courses 112, 121, 122, and 123, but have omitted courses 171, 173.
5 units, autumn, *winter, and *spring quarters (YOUNG, PARKS) 5 afternoons
autumn, 5; winter, 7; spring, 1

181. Electro-Chemistry.—Discussion of the general theories and applications of electro-chemistry. Open to seniors in Chemistry, and to others who have completed courses 171, 173, or their equivalent.
5 units, spring quarter (PARKS) By arrangement
spring, 14

191. Nutrition.
2 units, winter quarter (ALSBERG)
winter, 11

201. Seminary in Chemistry.—Discussion of assigned topics in theoretical and general chemistry. Open to graduate students and to advanced undergraduates in Chemistry, with the approval of the Faculty in Chemistry.
1 unit, every quarter (FRANKLIN, KENDALL, SWAIN) W 4
autumn, 33; winter, 33; spring, 17; summer, 10

205. Thermodynamics and Chemistry.—A problem and reading course. The original researches on which are based the laws of physical chemistry will be studied. The practical application of the laws will be demonstrated by problems. Prerequisites: Chemistry 171, 173, and a knowledge of calculus.
3 units, autumn quarter (RUSSELL) To be arranged
autumn, 5

207. Thermodynamics and Chemistry.—A continuation of Chemistry 205.
3 units, winter quarter (RUSSELL) To be arranged
winter, 5

210. Advanced and Special Courses.—Advanced and Special Courses in laboratory work and research work are open to students who have completed the necessary prerequisites, by arrangement with professors of the department, and with reference to the particular aims and ambitions of the students.
autumn, 29; winter, 33; spring, 22; summer, 11

Candidates for the degree of Bachelor of Arts in Chemistry must offer the equivalent of two years of college work in German, or two years of French and one year of German. The election of German in the Lower Division is advised for those who have not had the equivalent of two years of college work in the subject. A good reading knowledge of German is required for all advanced degrees.

Major students should complete the courses in one of the following curricula (A, B, C, or D) in meeting the requirements for the degree of Bachelor of Arts in Chemistry.

Qualified students may also pursue investigations of problems in inorganic, organic, physical, analytical, or physiological chemistry under

the direction of any professor with whom arrangement is made. For all such advanced, special, or research work, students will register and enroll under 210, giving the name of the professor under whom the work is to be carried on, and for such number of units of credit as may be agreed upon.

Students intending to major in the Department of Chemistry are advised to offer entrance credit in chemistry, physics, mathematics (including solid geometry and trigonometry for the chemical engineering course), and German (2 units). Entrance credit in biological science will also be advantageous. Students without these entrance credits may experience some difficulty, especially in the chemical engineering course, in conforming to the departmental requirements for graduation. Consult also the *Registration Manual for the Lower Division.*

A. General Chemistry

[Recommended for all who are studying the science of chemistry particularly as a basis for teaching or scientific research.]

First and Second Years.—Lower Division requirements, including Chemistry 1, 2, 3, 4, or 4, 7, 9, and 20; Physics 1, 2, 3, 20; Mathematics 20, or its equivalent; and German or French.

Third and Fourth Years.—Chemisty 101, 111, 112, 121, 122, 123, 171, 173, and 174 or 210.

B. Analytical Chemistry

[Particularly adapted to meet the needs of students who are looking forward to the career of analytical chemist.]

First and Second Years.—Lower Division requirements, including Chemistry 1, 2, 3, 4, or 4, 7, 9, and 20; Physics 1, 2, 3, 20; Mathematics 20, or its equivalent; and German or French.

Third and Fourth Years.—Chemistry 101, 111, 112, 114, 118, 121, 122, 123, 171, 173, and 174 or 210; Mineralogy 122.

C. Biological Chemistry

[Particularly adapted to students who are looking forward to work along medical or biochemical lines.]

First and Second Years.—Lower Division requirements, including Chemistry 1, 2, 3, 4, or 4, 7, 9, and 20; Physics 1, 2, 3, 20; Mathematics 20, or its equivalent; and German or French.

Third and Fourth Years.—Chemistry 101, 111, 112, 121, 122, 123, 141, 142, and 174 or 210; Physiology 101 or 102; Bacteriology 1 or 201.

D. Chemical Engineering

[Intended especially for students who are working toward the degree of Engineer in Chemical Engineering, and who desire to fit themselves for positions of responsibility in connection with the administration of industries involving chemical knowledge and skill.]

This curriculum comprises four years of the necessary six years' work leading to the advanced degree of Engineer in Chemical Engineering. Candidates in this course receive the degree of A.B. in Chemistry, upon completion of the following requirements:

First and Second Years.—Lower Division requirements, including Chemistry 1, 2, 3, 4, or 4, 7, 9, and 20; Physics 11, 12, 13, 14; Applied Mathematics 1*a*, 1*b*, 2*a*; Engineering 1, 2.

Third and Fourth Years.—Chemistry 101, 111, 112, 114, 121, 122, 123, 171, 173; Applied Mathematics, 2*b*, 3*a*, 3*b*; Engineering 3, 106, 110; Mechanical Engineering 12.

Advanced Degrees

After October 1, 1926, candidates for the degree of Engineer in Chemical Engineering will be required to complete two years of graduate work in addition to the above requirements for the A.B. degree as given under Curriculum D. This work will include a thesis based on laboratory work and the following courses: Chemistry 125, 151, 174, 181, 205; Mechanical Engineering 121, 123, 132, 133, 236; Electrical Engineering 102, 103, 122, 123. A reading knowledge of both German and French will also be required.

Prior to October 1, 1926, this degree will be awarded upon the completion, in addition to the requirements for the A.B. degree in Chemical Engineering of three quarters of graduate work as outlined in the *Announcement of Courses* for 1920–21. These shall include the following courses: Chemistry 174, Mechanical Engineering 121, 123, 236, and a thesis based on laboratory work.

Applicants for the degree of Master of Arts in Chemistry will be expected to complete, in addition to the requirements for the Bachelor's degree, the equivalent of forty-five units of work in the University—of which approximately two-thirds must be in the department. This work will include a thesis based on laboratory work and courses 171, 173, and 174, if these were not included in the undergraduate work.

Candidates for the degree of Doctor of Philosophy in Chemistry, after the completion of the equivalent of the requirements for the degree of Master of Arts or Engineer, will follow such courses as are approved by the Department Faculty, subject to general University regulations.

The Teacher's Recommendation.—The minimum requirements for the high school teacher's recommendation in Chemistry are as follows:

(*a*.) To teach chemistry as a minor high school subject: Courses 1, 2, 3, 4, or 4, 7, 9 (General Inorganic lectures and laboratory); 20, (Qualitative Analysis); 101 (Principles of Chemistry); and either 121 and 123 or 127 and 128 (Organic Chemistry). Total, 26 to 33 units.

(*b*.) To teach chemistry as a major high school subject: Courses 1, 2, 3, 4, or 4, 7, 9 (General Inorganic lectures and laboratory); 20, (Qualitative Analysis); 111, 112 (Quantitative Analysis); 101 (Principles of Chemistry); 121, 123 (Organic Chemistry). Total, 34 to 39 units.

Laboratory Fees.—A charge of $25 per quarter ($10 of which is returnable less bills for breakage and loss of apparatus) is made to students in courses 2, 4, and 128; for three units' credit in Chemistry 118 or 210, the fee is $20 per quarter (with $10 returnable less breakage); for all other courses of not more than six units' credit the fee is $30 per quarter (of which $15 is returnable less bill for breakage and loss of apparatus).

CLASSICAL LITERATURE

HENRY RUSHTON FAIRCLOUGH, †AUGUSTUS TABER MURRAY, Professors.
JEFFERSON ELMORE, BENJAMIN OLIVER FOSTER, ERNEST WHITNEY MARTIN, Associate Professors.
MILDRED ESTUS, MARY WEBSTER KRAEMER, HALLIE WATTERS, Assistants in Instruction.

The Department of Classical Literature, into which the separate departments of Greek and Latin have been merged, has for its aim the interpretation in the broadest sense of the civilizations of Greece and Rome. It accepts as major students those who desire training in Greek and Latin as a preparation for graduate work either in this University or elsewhere, or who wish to secure teachers' certificates in the classical languages, and also those who, without intending to specialize in Greek or in Latin, wish to make their work in the University conform to the traditional arts course. The student is free to make his major work Greek or Latin at will.

Students who have had no Greek before entering the University may begin their study of the language in any quarter in introductory courses which are open to students in all departments of the University. Students who offer Greek on entrance will be registered in classes adapted to their needs.

In addition to the courses in the Greek and Latin languages, the department offers courses in Classical Literature, History, Archaeology, Art, and allied subjects, which, as indicated below, may be taken by major students as a part of their required work, but presuppose no knowledge of the Greek and Latin languages, and are open, unless otherwise stated, to students in all departments of the University.

The department offers three majors with a normal requirement of forty-five credit units, as follows: (1) Classical Literature, Greek; (2) Classical Literature, Latin; and (3) Classical Literature. For the first of these the student must have completed thirty units in courses in the Greek language plus fifteen units in the general courses offered by the department; for the second, thirty units in courses in the Latin language (beyond course B3) plus fifteen units from the general courses; and for the third, either thirty units in courses in the Greek language plus fifteen units in Latin, or thirty units in Latin plus fifteen units in Greek.

The completion of the major requirements for graduation carries with it the department recommendation for the teacher's certificate, provided that the Teachers' Course in the language chosen has been included in the work offered. Students in other departments who wish to secure a teaching major or minor in Latin or Greek should consult some member of the department.

A. GREEK COURSES

A1a. Elementary Greek.—Introduction to Greek through Homer. Forms; elements of Greek. Homeric word-lists; writing of simple sentences; reading of Book I of Homer's Iliad.

3 or 5 units, spring and *summer quarters (MARTIN) MWF 9
autumn, 4; summer, 1

†Absent on leave, 1922–23.

A1b. Elementary Greek.—Introduction to Greek through Attic prose. Essential forms; elements of Greek syntax; word-lists from Xenophon; writing of simple sentences; dictation; reading of easy Greek prose.
3 or 5 units, autumn and winter quarters (MARTIN) TTh 8 (3d hour by arrangement)
autumn, 4; winter, 6

A1c. Elementary Greek.—Introduction to Greek through New Testament Greek. Word-lists; writing of simple sentences; reading of the Gospel of John.
3 or 5 units, autumn quarter (WATTERS) MWF 1:05
autumn, 4

A2a. Homer.—Review of Homeric forms and grammar; reading of selections from the Iliad. Open to those who have had A1*a*.
3 or 5 units, winter quarter (MARTIN) MWF 9
winter, 2

A2b. Xenophon.—Review of Greek Grammar; reading of selections from the Anabasis. Open to those who have had A1*b*, A1*c*, or equivalent.
3 or 5 units, spring quarter (MARTIN) TTh 8 (3d hour by arrangement)
spring, 6

A2c. New Testament.—Review of Greek Grammar; reading of the Gospel of Mark and the Acts of the Apostles. Open to those who have had A1*b*, A1*c*, or equivalent.
3 or 5 units, winter quarter (WATTERS) MWF 1:05
winter, 2

A3a. Homer continued.—Rapid reading of selected books from the Odyssey; informal discussion of Homeric problems, life, and criticism. Open to those who have had A2*a*, 2*b*, 2*c*, or equivalent.
3 or 5 units, spring quarter (MARTIN) MWF 9
spring, 3

A3b. Plato.—Systematic review of Greek syntax; practical exercises written and oral; reading of Cebes' Tablet, Plato's Apology and Crito. Open to those who have had A2*a*, 2*b*, 2*c* or equivalent.
5 units, spring quarter (WATTERS) MTWThF 1:05
spring, 3

A12. Later Greek Epic.—Rapid reading of the Argonautica of Apollonius Rhodius. Study of the tradition and myth of Jason and Medea in later literature.
2 units, summer quarter (MARTIN) TTh 9
summer, 4

A13. Individual Work.—Students and instructors meet each week for free reading in Greek suited to the needs of the individual.
1 to 3 units, each quarter (FAIRCLOUGH, MARTIN, WATTERS) By arrangement
autumn, 9; winter, 11; spring, 9; summer, 6

[NOTE.—Three courses (9 or 15 units) chosen from the above with reference to the student's taste and preparation constitute the first year's work in Greek for those who have had no Greek before entering college, and may be counted toward the fulfillment of the foreign language requirement of the Lower Division. Where possible it is strongly urged that this work be accomplished during the first two years of residence, especially by those who plan to become Greek majors in Classical Literature.]

A15. Thesis.
(FAIRCLOUGH)
autumn, 2; winter, 1; spring, 1

A50. Greek Historians.—Selections from Herodotus; Thucydides, Book VI; Xenophon, Hellenica. Study of the Greek Historians. Open to those who have had A3*a*, 3*b*, or equivalent.
3 units, autumn quarter (MARTIN) MWF 8
autumn, 5

A51. Rapid Reading.—Lucian's Vera Historia and selected orations of Lysias. Open to those who have had A3*a*, 3*b*, or equivalent.
2 units, autumn quarter (MARTIN) By arrangement
autumn, 2

A52. Introduction to Greek Poetry.—Selections from the Greek Lyric Poets. Open to those who have had A50, 51, or equivalent.
3 units, winter quarter (FAIRCLOUGH, MARTIN) MWF 8
winter, 5

A53. Rapid Reading.—Selections from the Greek Anthology and Bacchylides. Open to those who have had A50, 51, or equivalent.
2 units, winter quarter (MARTIN) By arrangement
winter, 1

A54. Introduction to Greek Tragedy.—Euripides' Alcestis and Sophocles' Antigone. Open to those who have had A52, 53, or equivalent.
3 units, spring quarter (MARTIN) MWF 8
spring, 6

A55. Rapid Reading.—Greek comedy. Selections from Aristophanes and Menander. Open to those who have had A52, 53, or equivalent.
2 units, spring quarter (MARTIN) By arrangement

[NOTE.—Courses A50–55 (9 or 15 units) constitute the second year's work in Greek for those who begin their Greek in the University.]

A101. Aeschylus.—Reading of Prometheus Bound and Agamemnon; lectures.
3 units, autumn quarter (MURRAY) [Not given in 1922–23]

A103. Demosthenes.—Reading of the De Corona; sight translation of *Aeschines Against Ctesiphon.*
3 units, spring quarter (MURRAY) [Not given in 1922–23]

A110. Theocritus.—Reading of the idylls in Greek and a survery of pastoral poetry in ancient and modern literature.
2 units, autumn quarter (FAIRCLOUGH) TTh 10
autumn, 4

A110a. Pindar.
2 units, spring quarter (FAIRCLOUGH)
spring, 3

A111. Pausanias.—Reading of Book I and selections from the other Books. Study of the topography and monuments of Athens, Delphi, Corinth, and Olympia.
2 units, autumn quarter (MARTIN) [Not given in 1922–23]

A112. Later Greek Epic.—Rapid reading in the Argonautica of Apollonius Rhodius, and the Posthomerica of Quintus Smyrnaeus.
2 units, summer quarter (MARTIN) TTh 9

A200. Teachers' Course.—Lectures on methods, with practical training.
2 units, spring quarter (MARTIN) [Not given in 1922–23]

A220. Modern Greek.—Grammar (Rangabe); reading of easy texts.
2 units, spring and summer quarters (FAIRCLOUGH, MARTIN) MW 9
spring, 2

A250 (B250). Journal Club.—Instructors and advanced major students meet each week for the discussion of journals and new books of interest to classical students.
1 unit, autumn and winter quarters (FAIRCLOUGH) MW 3
autumn, 3

A280. Greek Seminary.—Graduate students meet twice a week during 1922–23 for the reading and discussion of Plato's Symposium, Phaedrus, and Philebus.
4 units, winter and spring quarters (FAIRCLOUGH) MW 1–3
winter, 3; spring, 5

B. LATIN COURSES

B1. Introduction to Latin.—Grammar and exercises. For students who have had no Latin. May be taken (with B2–B6) in fulfillment of the foreign language requirement of the Lower Division.
5 units, autumn quarter (ESTUS) MTWThF 1
autumn, 5

B2. Introduction to Latin (continued).—Reading of easy prose, exercises in composition, Caesar begun.
5 units, winter quarter (ESTUS) MTWThF 1
winter, 3

B3. Introduction to Latin (concluded).—Caesar's Gallic War, Books I–IV, or selections from the Gallic and Civil wars; exercises in composition.
5 units, spring quarter (ESTUS) MTWThF 1
spring, 3

B4. Cicero.—Selected orations. Open to students who have had two years of high-school Latin. May be taken (with B5 and B6) in fulfillment of the foreign language requirement of the Lower Division.
3 units, autumn quarter (ELMORE) MWF 11
autumn, 5

B5. Virgil.—Selected books of the Aeneid. Open to students who have had two years of high-school Latin.
3 units, winter and *summer quarters (FOSTER) MWF 9
winter, 8

B6. Virgil.—A continuation of B5, but may be taken by any student who has had two years of high-school Latin.
3 units, spring quarter (FAIRCLOUGH) MWF 9
spring, 5

B8. Selections from Latin Poets.
3 units, summer quarter (KRAEMER) MWF 8
summer, 3

B14. Terence and Cicero.—The Andria of Terence and the De Senectute of Cicero. Open to those who have had three years of high-school Latin or have taken B4–6.
3 units, autumn quarter (FOSTER) MWF 9
autumn, 6

B15. Catullus and Horace.—Selections from Catullus and from the Odes and Epodes of Horace. Open to those who have had three years of high-school Latin or have taken B4–6.
3 units, winter quarter (ELMORE) MWF 9
winter, 9

B15a. Suetonius.—Selections from the biographies, with special attention to the Life of Augustus and to Roman biography as a literary type.
3 units, summer quarter (Elmore)
summer, 5

B16. Livy.—Books XXI and XXII. The war with Hannibal to the battle of Cannae. Open to those who have had three years of high-school Latin or have taken B4–6.
3 units, spring quarter (Foster) MWF 9
spring, 6

B17. Latin and Spanish Forms and Syntax.
2 units, summer quarter (Kraemer) MW 3
summer, 4

B25. Roman Law.—The Institutes of Gaius or Justinian are read both as a training in language and as an introduction to the main principles of Roman law. The course is useful to all who desire a first-hand knowledge of Roman law and of the origins of European social institutions. Open to those who have had three years of high-school Latin.
3 units, autumn and winter quarters (Fairclough) [Not given in 1922–23]

B29. Prose Composition.—The exercises are not based on a Latin text, but are drawn from present-day affairs and events, with the aim of imparting some facility in original composition. Open to those who have had three years of high-school Latin, or have taken courses B4–6.
2 units, autumn and winter quarters (Elmore) TTh 9
autumn, 4; winter, 6; spring, 6

B40. Horace.—Satires and Epistles. Attention is directed especially to the style and subject-matter, to Horace's influence on Latin literature, and to the salient features of the Augustan Age. Open to those who have had B14–16 or an equivalent.
3 units, autumn quarter (Fairclough) MWF 8
autumn, 3; winter, 1

B41. Tacitus.—Annals XIII–XVI. The life and times of the Emperor Nero. Open to those who have had B14–16, or an equivalent.
3 units, winter quarter (Foster) MWF 8
winter, 4

B103. Cicero.—Selections from the correspondence of Cicero, illustrative of the man and his age. Open to those who have had two years of college Latin.
3 units, autumn quarter (Foster) MWF 11
autumn, 3

B124. Juvenal and Martial.—The first, third, and tenth satires of Juvenal, and selected epigrams of Martial. Open to those who have had two years of college Latin.
3 units, winter quarter (Foster) MWF 11
winter, 5

B136. Roman Comedy.—The Captivi and Rudens of Plautus, and either the Trinummus of Plautus or the Phormio of Terence. Open to those who have had two years of college Latin.
4 units, spring quarter (Foster) MWF 11
spring, 3

B138. Petronius and Apuleius.—The Cena Trimalchionis and selections from the Metamorphoses.
3 units, winter quarter (Foster) [Not given in 1922–23]

B145. Mediaeval Latin.—Reading of representative texts with informal discussions. Intended for Latin students interested in the later develop-

ment of the language and for students of English and history working in the mediaeval field. Not counted in fulfillment of major requirements of the Classical Literature department.
3 units, spring quarter (Elmore) [Not given in 1922–23]

B200. Teachers' Course.—Lectures and conferences on methods of teaching Latin. Open only to advanced students.
2 units, autumn and summer quarters (Elmore) TTh 11
autumn, 5; summer, 3

B225. Latin Epigraphy.—Lectures, with practice in the reading of inscriptions and in the use of the Corpus. Primarily for graduate students.
1 unit, winter quarter (Fairclough) TTh 3
winter, 5

B230. Latin Palaeography.—The ancient and the mediaeval book, with practical exercises in the reading of facsimiles.
2 units, spring quarter (Foster) TTh 3
spring, 6

B250 (A250). Journal Club.
winter, 3

B281. Latin Seminary.—Satire and Lyric. The works of Horace will be the basis of study. Students should provide themselves in advance with the Oxford text of Horace.
4 units, winter quarter (Fairclough)
winter, 6

B282. Latin Seminary.—Caesar's Commentaries on the Gallic War as the basis of an introduction to the methods of text-criticism. Practice in the decipherment and collation of MSS. from facsimiles and in the use of the apparatus criticus.
4 units, autumn quarter (Foster) TTh 2:15–4:05
autumn, 5

B283. Latin Seminary.—The Aeneid of Virgil is studied in its entirety as a work of art, with interpretation of selected passages, and some attention to the poet's influence on mediaeval and modern literature. Open to qualified graduates.
4 units, winter and spring quarters (Fairclough) TTh 1–3
winter, 6; spring, 7

B284. Latin Seminary.—Study of Roman municipal institutions. Based on the extant fragments of municipal charters, the Municipal Law of Julius Caesar and other inscriptions, and the literary sources. Intended for students of Latin and others interested in the history of institutions.
3 units, summer quarter (Elmore) MWF 2:05–3:05
summer, 11

C. General Courses

C1. History of Greece.—Outline course, from the earliest period to 30 B. C. Preliminary survey of the Mediterranean background. Open to all students.
3 units, autumn quarter (Elmore, Martin) MWF 8
autumn, 82

C2. Greek History A.—From the earliest times to the end of the Persian wars. Lectures, with a study of Herodotus in English translation.
3 units, autumn quarter (Martin) [Not given in 1922–23]

C3. Greek History B.—The Fifth Century. From the end of the Persian wars to the fall of the Athenian empire. Lectures, with a study of Plutarch and Thucydides in English translations.
3 units, winter quarter (MARTIN) [Not given in 1922–23]

C4. Greek History C.—The Fourth Century. From the fall of Athens to the death of Alexander. Lectures, with a study of Xenophon, Plutarch, Demosthenes, and Arrian in English translations.
3 units, spring quarter (MARTIN) [Not given in 1922–23]

C5. History of Rome.—From the earliest times to the fall of the Western empire. Development of Roman imperialism and the relation of the empire to mediaeval and modern history. Open to all students.
3 units, spring quarter (ELMORE) MWF 8
spring, 117

C6. History of Roman Civilization.—Study of the conditions of Roman life and comparisons with those of our own. Features of Roman civilization that have survived and influenced the present. Open to all students.
3 units, winter and *summer quarters (ELMORE) MWF 8
winter, 36; summer, 18

C8. Roman Political and Municipal Institutions.—Brief survey of the government of Rome. Development of municipalities in the Roman Empire.
2 units, winter quarter (ELMORE) TTh 11
winter, 32

C15. Plutarch.
2 units, autumn quarter (MARTIN) TTh 10
autumn, 51

C20. Greek Literature, Poets.—Lectures; reading in translations of selections from the greater Greek poets with some reference to their influence on later literature. Open to all students.
3 units, autumn quarter (MARTIN) MWF 11
autumn, 63

C21. Greek Literature, Poets.—Continued.
3 units, winter quarter (MARTIN) MWF 11
winter, 58

C22. Greek Literature, Prose Writers.—Lectures; reading in translations of selections from Herodotus, Thucydides, Xenophon, Plato, Demosthenes, Plutarch, and Lucian. Open to all students.
3 units, spring quarter (MARTIN) MWF 11
spring, 106

C23. Greek Masterpieces.—Representative types from each division of Greek literature are read and discussed. Reports on reading.
2 units, summer quarter (MARTIN) TTh 11
summer, 61

C24. Greek and Roman Epics.—Lectures on the Homeric poems and the Aeneid of Virgil, with assigned reading in English.
2 units, winter quarter (FAIRCLOUGH) TTh 9
winter, 44

C26. New Testament Literature.—Lectures on the origin, authorship, and characteristics of certain books of the New Testament. Open to all students.
2 units, autumn quarter (FAIRCLOUGH) MW 9
autumn, 17

C37. Latin Poets.—Certain of the classical poets (including Plautus, Terence, Lucretius, Catullus, Virgil, Horace, Propertius, Juvenal, and Martial,) will be studied in English translations. Lectures, with assigned reading and brief reports. Open to all students.
2 units, winter quarter (FOSTER) TTh 11
winter, 29

C38. Latin Prose Writers.—Some of the more important writers of Latin prose, such as Cicero, Caesar, Livy, Seneca, and Tacitus, and, if time permits, the younger Pliny, Petronius, and Apuleius, are studied in English translations. Lectures, with assigned reading and brief reports. Open to all students.
2 units, spring quarter (FOSTER) TTh 11
spring, 46

C39. Seminary in Ancient History.—Investigation of special problems in Greek and Roman History. Open to a limited number of qualified students.
3 units, spring quarter (ELMORE) [Not given in 1922–23]

C40. Prose Fiction of the Greeks and Romans.—Origins and development of the genre as illustrated by Xenophon, Lucian, Longus, Heliodorus, and Achilles Tatius, and by Petronius and Apuleius. Open to all students.
2 units, summer quarter (FOSTER) [Not given in 1922–23]

C41. Greek and Roman Lyric Poetry.—Lectures with assigned reading. Open to students above the first year.
2 units, winter quarter (FAIRCLOUGH) [Not given in 1922–23]

C44. Greek Myths.—The more important myths and legendary characters of early Greece are traced through Greek literature with some reference to their treatment in later literature. Lectures with assigned reading. Open to all students.
2 units, summer quarter (MARTIN)
summer, 64

C48. Greek and Roman Aesthetics.—Based chiefly on the Phaedrus of Plato, Aristotle's Poetics and the Ars Poetica of Horace. An attempt to show what Greek and Roman writers contributed to aesthetic theory and to illustrate some of their principles of literary criticism. Open to upper-classmen and to others on permission of the instructor.
2 units, spring quarter (ELMORE) TTh 2:05–3:05
spring, 12

C50. Classical Art and Archaeology.—Lectures, illustrated with photographs and lantern slides. Open to all students.

a. Greek
2 units, autumn quarter (FAIRCLOUGH) TTh 11
winter, 36

b. Roman
2 units, winter quarter (FAIRCLOUGH) TTh 11
spring, 46

ECONOMICS

Murray Shipley Wildman, Walter Greenwood Beach, Eliot Jones, Albert Conser Whitaker, Professors.
John Maurice Clark, James Edward LeRossignol, Eliot Grinnell Mears, Acting Professors.
Joseph Stancliffe Davis, Alonzo Englebert Taylor, Directors of the Food Research Institute.
John Bennet Canning, Assistant Professor.
Margaret Mulford Lothrop, Nathaniel Sanders, Instructors.
Walter Edwards Beach, Connell Clifford, Bernard Francis Haley, Clinton Fisk Wells, Assistants in Instruction.

Nature and Purpose.—The courses offered in this department are not confined to the subject of Economics as properly defined, but include a number of topics often given in departments of sociology and schools of commerce. In the conduct of all the courses, however, the economic factors are emphasized and their importance to our social institutions is developed. The primary purpose of the instruction is to discover the elements of sound public policy rather than to train for a vocation.

Graduation.—To arrange a program of study leading to the degree of Bachelor of Arts in Economics a student should consult with his departmental adviser in order that his program of work may be adapted to his special needs or interests. In making such a program at least a fourth of the required 180 units must be selected from courses offered in this department.

In addition to courses given in this department, certain others offered in Political Science, History, Law, and Philosophy will be found helpful and should be included in the student's program.

Course 1 (Economic Problems) or its equivalent, and course 100 (Principles of Economics) are required of all candidates for graduation in Economics.

Teacher's Certificate.—To obtain a teacher's certificate with the major subject in this department, a student will be required to secure credit for 45 units of work in Economics. For a certificate with a minor in this department, credit for 25 units is required.

Journalism.—Students, majors in this department, who desire to prepare for journalism are referred to the announcement on page 205.

Secretarial Training.—See courses at end of this list (p. 165).

Courses Primarily for Lower Division Students

1. Economic Problems (Citizenship).—This is an elementary study of problems involving the production, exchange, and use of wealth. An attempt will be made to give the student an approach to the economic issues of the day with an intelligent appreciation of the factors which make for sound public policy.

4 units, autumn, *winter, *spring, and *summer quarters (Wildman, Jones, LeRossignol) MTWTh 10
autumn, 257; winter, 186; spring, 176; summer, 41

2. Social Problems (Citizenship).—This is an elementary study of the problems that arise out of the relations of people to each other as these

relations express themselves in such important institutions as the family, state, and church. It will be the purpose of the course to give the student criteria for intelligent criticism of legislation and practice.

4 units, autumn, *winter, and *spring quarters (Beach) MTWTh 10
autumn, 244; winter, 246; spring, 233

3. Elementary Accounting.—Development of accounting; theory of debit and credit; bookkeeping forms and practice; preparation of balance sheets and their interpretation; application of theory and principle to simple systems of accounts; practical accounting problems. No prerequisites. This course should be taken by students expecting to enter courses 20 and 29.

3 units, autumn, *winter, *spring, and *summer quarters (Beach, Clifford, Wells) MWF 8, 11, 2:05
autumn (2 sections), 45, 42; winter (2 sections), 34, 32; spring (3 sections), 29, 33, 57; summer, 38

5. Railway Transportation.—Historical account of railroad transportation; development of railroad systems; state and federal legislation; decisions of the commissions and of the courts; government ownership and operation. Not open to first-year students.

5 units, autumn quarter (Jones) MTWThF 8
autumn, 163

6. Introduction to Statistical Methods.—A study of elementary statistical methods appropriate for dealing with problems in the social sciences and business. Emphasis will be given to the critical examination of data, to the defining of statistical units, to the theory of classification, to the properties and appropriate uses of the commoner averages, and to the determination and interpretation of index numbers.

4 units, summer quarter (Canning) MTWTh 9
summer, 28

7. Financial History of the United States.—A general historical survey of the financial policy of the national government, with especial emphasis on the Revolution, Civil War, and recent periods. The subject matter of the course includes the tariff, the internal revenue system, public finances in time of war, the public land policy, the growth of public expenditures, management of the public debt, and treasury administration.

4 units, spring quarter (Haley) MTWTh 9
spring, 65

8. Economic Resources of the United States.—Physical, political, and commercial factors determining resource development; regional geography, with emphasis on location of producing and consuming areas; energy supply; national legislation and control. This course should be taken as prerequisite to course 66.

4 units, winter quarter (Mears) MTWTh 11
winter, 86

21. Public Finance.—A general course dealing with the history and theory of public expenditure, national, state, and local budgets, methods of securing efficiency in the disbursements of public moneys, public debts, and war finance.

4 units, winter and *summer quarters (Haley, Wells)
(winter) MTWTh 9; (summer) MTWTh 11
winter, 42; summer, 37

22. Labor Problems.—A general course. The topics considered include the following: the rise of the wage-earning class, the industrial revolu-

tion, unemployment, woman and child labor, wages, collective bargaining, labor motives, and cultural aspects of labor life.
3 units, winter quarter (Beach); 4 units, *summer quarter (LeRossignol) (winter) MWF 9; (summer) MTWTh 8
winter, 68; summer, 85

26. Money and Credit.—The elements of monetary theory; the laws of coinage, legal tender, and credit; the standard of value, price movements, and their relation to prosperity.
3 units, autumn quarter (Wildman) MWF 8
autumn, 124

27. Insurance.—The social and individual problems of economic insecurity; the development of forms of insurance to deal with them; outlines of the principles of the major commercial branches of insurance; problems of state control and participation.
4 units, autumn quarter (Canning) MTWTh 9
autumn, 55

28. Foreign Trade.—International significance; organization of the import trade and the export trade; value and use of statistics; methods employed by leading national conmpetitors; government aid to foreign commerce.
4 units, spring quarter (Mears) MTWTh 9
spring, 121

29. Intermediate Accounting.—The accounts peculiar to the modern business corporation; and the procedure necessary to report the performance (1) of administrative officers to boards of directors, and (2) of boards of directors to the body of stockholders. Prerequisite: course 3 or its equivalent. Limited to forty.
4 units, autumn and *summer quarters (Canning) (autumn) MTWTh 11; (summer) MTWTh 10
autumn, 40; summer, 20

48. Federal Tax Procedure.—A critical examination of the concepts of income and expense expressed and implied in the Revenue Act of 1921. Illustrative problems in the application of these notions in tax reports due in 1923 will constitute a major portion of the course. Prerequisite: course 3 or its equivalent.
3 units, winter quarter (Canning) MWF 11
winter, 17

[**Business Law.**—See courses 100 and 101 in the Law School.]

Courses Primarily for Upper Division Undergraduates

66. Marketing.—An analysis of the fundamental problems involved in the distribution of commodities from producers to consumers; the functions assumed by various agencies; the features peculiarly applicable to raw materials and foodstuffs, and to manufactured products; coöperative marketing systems, notably the producer type developed in California.
4 units, winter and *spring quarters (Mears) (winter) MTWTh 10 (spring) MTWTh 11
winter, 58; spring, 58

67a. Seminar in Social Investigation.—Practical experience in some small investigation. Open only to seniors and graduates who have taken Economics 67 (Introduction to Social Investigation).
autumn quarter (Lothrop) By arrangement
autumn, 21

67b. Seminar.
winter quarter (Lothrop) By arrangement
winter, 5

74. Advanced Theory.
4 units, spring quarter (Clark) MTWTh 8
spring, 22

76. Statistics at Work.—A study of the uses of statistics in business and in economic research, with emphasis upon correct analysis, effective presentation, and significant interpretation. Open to qualified students on consultation with the instructor.
3 units, spring quarter (Davis) MWF 9
spring, 17

77. Overhead Costs.
4 units, spring quarter (Clark) MTWTh 10
spring, 23

100. Principles of Economics.—A review of the principles of economics. Required of economics majors and open only to them and to graduate students of other departments.
4 units, autumn and *spring quarters (Jones) (autumn) MTWTh 9
(spring) MTWTh 8
autumn, 51; spring, 67

101. Railway Problems.—A study, from the viewpoint of public policy, of the problems that arise in connection with government regulation and government ownership. Prerequisite: course 5.
2 units, winter quarter (Jones) MW 8
winter, 27

102. Banking.—The organization of American credit institutions under the Federal Reserve Act, and a comparison between American and European practice.
3 units, winter quarter (Clifford) MWF 8
winter, 118

103. Care of Dependents.—A study of the problems of the care of dependents and defectives in institutions and in their homes, with special reference to conditions in California. Three trips of inspection will be required.
4 units, autumn quarter (Lothrop) MTWTh 11
autumn, 39

104. Problems of Poverty. –A study of the factors causing poverty, crime, disease, and mental defectiveness, as evidences of social maladjustment; a survey of the possible means of prevention and of the social agencies attempting such work, with special reference to California. Trips of inspection will be included.
4 units, summer quarter (Lothrop) MTWTh 11
summer, 12

105. Crime as a Social Problem.—A study of the problems of crime: the criminal and his characteristics, the treatment of the criminal, the causes and the prevention of crime, with special reference to conditions in California. Three trips of inspection of institutions will be required.
5 units, winter quarter (Lothrop) MTWThF 11
winter, 42

106. Foreign Exchange.—A study of the system of settling international indebtedness; principles and practice of exchange banking; money

markets of the world and their relations. Domestic exchange will also be considered.

4 units, autumn and *winter quarters (WHITAKER) (autumn) MTWTh 10 (winter) MTWTh 11
autumn, 53; winter, 41

107. Railway Administration.—A study, from the viewpoint of the railroad executive, of railway organization, operation, traffic, finance, accounts, and rates. Prerequisite: course 5. Best preceded by courses 3 and 20.

2 units, winter quarter (JONES) TTh 8
winter, 34

109. Advanced Accounting.—The valuation of fixed assets of private enterprises, and the distribution among accounting periods of costs and losses incurred in connection with investment in fixed assets. Special emphasis will be given to valuation for purposes of purchase and sale of a business, and purposes of corporate combination or reorganization. Prerequisite: intermediate accounting or its equivalent.

3 units, winter quarter (CANNING) MWF 9
winter, 18

110. Interpretation of Accounting Reports.—A discussion of the balance sheet, of the loss and gain statement, of the statement of application of funds, and of progress reports, with reference to the interests of the stockholder, the short-term creditor (chiefly the banker), and the bondholder. Prerequisite: intermediate accounting or the equivalent.

2 units, winter quarter (CANNING) TTh 11
winter, 25

111. Seminar in Accountancy.—Special problems in the theory and practice of accounts. Prerequisite: consent of the instructor.

autumn, *winter, *spring, and *summer quarters (CANNING) By arrangement
autumn, 5; winter, 10; spring, 5; summer, 5

115. Psychological Aspects of Sociology.—This course is a study of the organization of society from the point of view of mental interrelationships of society and the individual. Problems of association, leadership, conflict, coöperation, the formation of public opinion, and social progress will be considered. An elementary knowledge of sociology and psychology is assumed.

3 units, autumn quarter (BEACH) MWF 9
autumn, 32

117. Problems of Child Welfare.—A brief survey of problems of child protection and care from the social viewpoint, with special reference to conditions in California.

2 units, summer quarter (LOTHROP) TTh 10
summer, 14

118. Seminar in Social Problems.—Practical experience in some investigation.

winter quarter (LOTHROP) By arrangement
winter, 12

119. Accountancy of Investment.—Methods of valuing income-bearing properties and securities on the basis of a rate of interest, and of finding the rate of interest yielded on investments. Depreciation and sinking funds. The student's work will consist largely in the solution of assigned problems. Advanced mathematics not required.

4 units, autumn and *spring quarters (WHITAKER) MTWTh 11
autumn, 90; spring, 102

120. Corporation and Trust Finance.—Elementary survey of corporation law; the organization and management of corporations and combinations; the corporation's securities, stocks and bonds, and their classification; the stock market and stock speculation; capitalization, surplus, reserve, and financial policy; the provision of new capital; promotion, underwriting, receiverships, and reorganization.

4 units, winter and *spring quarters (WHITAKER) MTWTh 10
winter, 136; spring, 157

COURSES PRIMARILY FOR GRADUATE STUDENTS

201. Graduate Seminar.—Open only to candidates for higher degrees.

autumn, winter, spring, and summer quarters (WILDMAN, BEACH) By arrangement
autumn, 14; winter, 13; spring, 13; summer, 1

203. Seminar in Labor.—This seminar is designed for advanced students.

autumn, winter, and spring quarters By arrangement
autumn, 13; winter, 9; spring, 14

COURSES IN SECRETARIAL TRAINING

AI. Secretarial Training.—This course offers training in stenography and typewriting supplemented by instruction in the form, arrangement, and the general mechanical make-up of the business letter. It is open to a limited number of students from all departments in the order of their application. Credit for any of the courses in secretarial training is not accepted in fulfillment of the departmental requirements for graduation, but may count as part of the university requirement for the degree. Four hours' instruction a week in stenography and three in typewriting.

4 units, autumn, *winter, *spring, and *summer quarters (SANDERS)
(autumn) MTWTh 11; (winter) TWThF 8; (spring) MTWTh 11; (summer) TWThF 9
(3 units) *autumn, 28; winter, 24; spring, 9; summer, 8*
(1 unit) *autumn, 37; winter, 43; spring, 40; summer, 17*

AII. Secretarial Training.—Development of speed with accuracy on the typewriter coupled with ability to take stenographic dictation at the rate of 80 words a minute. Discussion of special problems in commercial correspondence and in office management. Open to those who have completed AI or its equivalent.

4 units, winter, *spring, and *summer quarters (SANDERS)
(winter) MTWTh 9; (spring) TWThF 8; (summer) TWThF 8
(3 units) *winter, 20; spring, 13; summer, 6*
(1 unit) *winter, 23; spring, 27; summer, 9*

AIII. Secretarial Training.—Special emphasis will be laid on further development of typewriter speed and on transcript work. In stenography the student should be able to take dictation at the rate of 110 words a minute. A study will be made of the duties and responsibilities of a secretary and the ethics of business. Open to those who have completed course AII or its equivalent.

4 units, autumn and *spring quarters (SANDERS)
(autumn) TWThF 8; (spring) TWThF 9
(3 units) *autumn, 8; spring, 13*
(1 unit) *autumn, 17; spring, 12*

AIV. Teachers' Course.—Designed for students preparing to teach the commercial subjects. Discussion of the methods of teaching shorthand,

typewriting, bookkeeping, and kindred commercial branches. Lectures, discussions, and demonstrations. Credit for this course is not accepted in fulfillment of the departmental requirements for graduation, but may count as part of the university requirement for the degree. Prerequisites: Economics A1, A11, A111, and 3, or their equivalent.

3 units, autumn and *winter quarters (SANDERS) T 1–4; Th 1–2
autumn, 3; winter, 10

EDUCATION

SCHOOL OF EDUCATION

The purpose of the School of Education is to enable the University to meet the legitimate demands of the State in the matter of the preparation, training, and certification of teachers and school officers. The faculty of the School is composed of the faculty of the Department of Education, together with representatives from other departments concerned with the preparation of teachers for the junior high schools and secondary schools; and the faculty of the School has outlined courses for preparation in both majors and minors which will lead to certification as teachers. A special announcement of the School, giving details as to its organization, requirements, and programs of study, will be mailed on request.

Of this School, the faculty of the Department of Education proper constitutes one division, and the faculty of the Division of Graphic Art another division.

DEPARTMENT OF EDUCATION

ELLWOOD PATTERSON CUBBERLEY, TRUMAN LEE KELLEY, JESSE BRUNDAGE SEARS, Professors.

[LEWIS MADISON TERMAN, Professor of Psychology.]

WILLIAM WEBB KEMP (San Jose State Teachers' College), Acting Professor of Education (Summer Quarter).

PERCY ERWIN DAVIDSON, WILLIAM MARTIN PROCTOR, Associate Professors.

IRVING ELGAR MILLER (State Normal School, Bellingham, Wash.), Acting Associate Professor of Education (Summer Quarter).

J. HAROLD WILLIAMS (State School, Whittier), Acting Assistant Professor (Summer Quarter).

JOHN CONRAD ALMACK, Lecturer.

RICHARD ARTHUR BOLT, Lecturer (Summer Quarter).

RALPH WALDO SWETMAN, Acting Instructor (Summer Quarter).

DOROTHY PUTNAM, Secretary of the School of Education, and Department Librarian.

MRS. DAVID EVANS, Assistant Librarian.

The Department of Education offers six main lines of work:

1. Courses of a general nature on the history, function, financing, and administration of public education, intended in part as information courses for the general university student and without reference to the work of teaching.

2. Courses intended to assist other departments in preparing their students for certification to teach in schools in California. All such students should confer with members of the Department of Education as to courses, but in general, courses 131, 132, and 133 are recommended, if the candidate has not had experience in teaching. Courses 150 and 160 are required for the elementary certificate, course 196 for the junior high school certificate, and course 158 for the certificate of work in Americanization classes. Three units in courses relating to secondary-school work (course 195) are required of all candidates for the high-school teacher's recommendation, under the regulations of the California State Board of Education, as are courses 199 and 201, if the candidate has not had previous experience in teaching. Courses 155 and 160 are also required for all forms of California certificates. (For a more detailed statement, see the *Announcement of the School of Education.*)

3. Four major courses, which may be followed by candidates for the High School Teacher's Recommendation, each counting as one of the required majors, and offering preparation along the following lines:

(*a.*) History and Theory of Education. Intended for those desiring a general acquaintance with educational history and theory.

(*b.*) High School Administration. Intended for those preparing for work as a high school principal.

(*c.*) Administration of Education. Intended for those preparing for executive work in education as principal or superintendent of schools.

(*d.*) Educational Research. Intended for those preparing to become directors of research in public school systems.

Each such major curriculum requires the completion of 45 units of work in the Department of Education; and the completion of some one of the four curricula is expected of those qualifying for the A.M. degree in Education. (For an outline of each curriculum, see the *Announcement of the School of Education.*)

4. Courses primarily for major students, or those making Education a minor and intended to give special preparation to (*a*) those who desire to become teachers of Education in normal schools or colleges, (*b*) those who desire to prepare to direct research work in training schools and public school systems, (*c*) those who wish to prepare for supervisory or administrative positions in the public schools, elementary or secondary, and (*d*) those who wish to prepare for special educational work in the elementary or secondary field. (See 3 above.)

5. Courses and research work, given in connection with the Department of Psychology, in the psychology and pedagogy of exceptional children. Two lines of work are offered in this field: (*a*) elementary courses designed to give prospective superintendents and principals a general acquaintance with the problems of special education, and (*b*) research courses for the advanced student who looks forward to work as clinical psychologist in the public schools or institutions for defectives or delinquents. The Dr. C. Annette Buckel Foundation, supplemented by additional support from the Board of Trustees of the University, has provided for a "research fellowship in the psychology and pedagogy of backward children." A "research fellowship in the study of exceptional children" has also been provided. (See Department of Psychology.)

6. Courses for the preparation of teachers of drawing for the public schools, and for the general training of college students in artistic percep-

tion and graphic expression. (See Division of Graphic Art.) Students may enroll as prospective majors in this division, beginning with the freshman year.

The courses in Education are open to all students as electives or as minor subjects, but only those who desire to prepare for one of the lines of work mentioned above under (3), (4), or (5), and whose preparation and experience are satisfactory to the department, will be accepted as major students. Only graduates of teachers' colleges, normal schools, or other teachers' training schools, or those having had teaching experience and having junior standing, will be accepted (except under special circumstances) as major students in Education during the two undergraduate years. Graduate work in Education is open to all properly qualified students, without these restrictions.

Major Requirements

Undergraduate Work.—Major students begin their work in Education with the junior year, taking courses 131, 132, and 133. These courses are also open as electives to second-year students. Psychology 50 should also be taken this same year. Collateral work will be advised to meet individual needs. A course in biological science and a course in the elements of Economics ordinarily will be required of all, though these are usually covered by Lower Division requirements.

For graduation the student must complete, in addition to the collateral work in other departments listed above, not less than thirty-five units of selected work in the department of Education and satisfy the requirements of one teaching major or two minors in the School of Education and outside the department. In certain cases one teaching major may be accepted in place of two teaching minors. Students coming with advanced or graduate standing from other universities may have substantially equivalent preparation or experience accepted in lieu of the courses and the major and minor work required here, and be permitted to do more advanced work instead.

First Graduate Year.—The requirements for the baccalaureate degree cover only introductions to the different fields of Education, and those proposing to offer themselves for responsible positions in educational work will be expected to proceed at once to the Master's degree. For this at least forty-five units of work will be required. Of this amount at least thirty units must be in Education in advance of the baccalaureate requirements, together with the presentation of a satisfactory thesis and the satisfaction of the requirements for one of the teaching majors offered in Education will be required. Work listed below course 175 ordinarily will not be included, and ordinarily one-half of the thirty units must be work listed above course 202. The completion of the first year of graduate study should mean a somewhat general acquaintance with the different fields of Education, together with the beginnings of specialization in some one or two of these. Those who desire to prepare properly for the type of positions indicated under 4 or 5 should proceed to the doctorate.

Second Graduate Year.—By the end of the second year of graduate study the student will be expected to have attained a mastery of the literature and practice in three of the following divisions of the subject:

(1) History of Education, European and American, (2) Theory and Practice of Elementary Education, (3) Theory and Practice of Secondary Education, (4) Organization and Administration of Education, (5) Educational Psychology and Theory. Students intending to proceed to the doctorate, either at once or later, may select one of these divisions as a major and one as a minor, and by the end of the second year of graduate study should also have completed in large part the required work in a second minor, outside of the department; should be able to satisfy the modern language requirements (German and French); and should be well started on the dissertation.

Candidacy for the Ph.D. Degree.—The minimum residence requirement for the degree is three years beyond the A.B. degree, of which at least the last year must be spent at Stanford. Neither the time element nor the number of courses completed will be considered as acceptable unless the candidate also demonstrates the ability to do intensive work and to carry through an original research in a highly creditable manner. Acceptance as a candidate for the Ph.D. degree requires an affirmative vote of the department faculty, and acceptance, after a preliminary examination, by a special examining board appointed by the Committee on Graduate Study. In addition, after 1923–24, all who desire to proceed to the doctorate in Education will be expected to pass an oral or a written test, or both, in three of the five divisions of the field, as given above. These departmental tests will be known as the preliminary departmental examinations for candidacy for the Ph.D. degree. For the present they will be given in May of each year, beginning with May, 1924. Written application for these examinations, designating fields, will be expected to be in the hands of the executive head of the department not later than April 15 of each year.

These tests will extend beyond the range of the courses offered, and will involve a knowledge of the literature and practice in each field. Only those passing these tests will be considered as accepted candidates for the Ph.D. degree, and as such be recommended to the Dean of Graduate Study for the further preliminary examinations for candidacy by a special examining committee of the Faculty, as required by the university regulations as to graduate study.

Third Graduate Year.—The final year will be devoted largely to personal investigation along the lines of the thesis subject, under the direction of the member or members of the department in charge.

Requirements for a Ph.D. Minor.—Unless otherwise arranged, candidates for the Ph.D. degree in other departments, who elect a minor in Education will be expected, in addition to offering evidence of practical experience in teaching, or school administration, to complete 45 units of work in education, half of which shall be in courses numbered above 174, and ordinarily to offer such courses along not more than two of the divisions of the field of education, as listed above.

Library and Practical Facilities

The general university library contains the important recent books, files of the more important educational magazines, both American and foreign, and a collection of early American educational magazines and reports. The special library of the department, consisting of about 8,000 volumes,

contains one of the most complete collections of American state and city school reports to be found in the United States, the library ranking probably third in this respect. It is also rich in old college and normal school catalogues and textbooks, of much historical value. The collection of old and present-day school textbooks is also large and valuable.

In practical facilities the department has good working connections with the State Teachers' College at San Jose, and with the public schools of the immediate vicinity. For more important studies by advanced students the large city school systems in the vicinity of the University can usually be made available.

The department also has good working connections with the department of Psychology, by means of which laboratory facilities for research are fully available to all who need them.

I. Courses of Instruction in Education

130. Training Course for Leaders and Girl Scouts.
2 units, winter quarter (Stark) TTh 2–3:30
winter, 16

131. Public Education in America.—A study of some of the more important present-day problems in the organization and administration of public education in the United States, in the light of their historical development. An introductory course. Lectures, following a text, with assigned readings.
3 units, autumn quarter (Cubberley) MWF 11
autumn, 42

132. Introduction to the Study of Education.—A study of typical phases of the organization and administration of public education, with a view to presenting such a body of information relating to the work of our public schools as the citizen and the teacher ought to have, and at the same time making the course an introduction to the various fields of education. Lectures, following a text, and assigned readings and reports.
3 units, winter quarter (Sears) MWF 11
winter, 19

133. Theory of Education.—An introduction to a philosophy of education, construed as an integrated view of the conditions and purposes of educational effort; biological infancy, human endowment and culture, education in relation to the problems of social progress and conservation. Lectures, following a syllabus, with assigned readings.
5 units, spring quarter (Davidson) MWF 11
spring, 18

134. Hygiene of the School Child.—A study of the physical basis of education, including such topics as growth, physical defects, health supervision, etc. Lectures, following a text, and assigned readings and reports.
3 units, summer quarter (————)

136. Maternity and Child Health.—A brief historical review of the child health movement in this country, followed by discussion of the principal activities for maternity and child health from the pre-natal period through adolescence. Present-day standards for child-health and their application to the modern public health movement. Lectures, discussions, and assigned readings.
3 units, summer quarter, 1st half (Bolt) MTWTh 3
summer, 13

137a. Psychology of Reading.—The learning processes involved in instruction in reading. Relative emphasis to be placed on oral and silent reading. Recent literature on the subject. Methods of improving expression, speed, and comprehension. Fundamental principles of evaluating primers and other reading texts.
2 units, summer quarter, 1st half (MILLER) MWThF 11
summer, 21

137b. Psychology of Arithmetic.—The learning processes involved in instruction in arithmetic and elementary geometry. A study of recent literature on the subject. The psychology underlying drill, the distribution of practice, reasoning, and the conditions of learning.
2 units, summer quarter, 2d half (MILLER) MWThF 11
summer, 21

138. Principles of Education.—Analysis of fundamental principles underlying and determining modern education. The application of these principles to the development of a unified system of thinking about the complex problems of the present day school—its functions, aims, pupils, curriculum, methods, teachers, and institutional organization.
4 units, summer quarter (MILLER) MTWTh 9
summer, 28

140. Intellectual Education.—Superstition, credulity and irrational belief; propaganda; educational practice and policies for the cultivation of reflective thinking; intellectual motivation; interests: their nature, origin, and growth; the relation of interests and abilities, etc. Dewey's How We Think will be the basal text for the course.
5 units, winter quarter (DAVIDSON) MTWThF 10
winter, 9

142. Education and Character.—A study of the significance for education of the psychology of character. Growth and character; types and individual differences; principles of training; educative agencies.
5 units, winter and spring quarters (DAVIDSON) MTWThF 9
winter, 8; spring, 9

150. Principles of Elementary Education.—An elementary course, intended for those without much acquaintance with elementary school work, and primarily designed to meet the State Board of Education requirement for the Elementary Certificate.
3 units, spring quarter (ALMACK) MWF 9
spring, 59

155. The California School System and Law.—A course on the development and chief features of the California school system, as outlined in the school law for the state. A required course for a teaching certificate of any grade in California.
3 units, winter and *summer quarters (SWETMAN) TWTh 4
winter, 123; summer, 110

158. Americanziation Work through Education.—A teacher's course, intended to prepare for this special type of work in the public schools. Required for the California Americanization Certificate.
3 units (ALMACK) [Not given in 1923–24]

160. Citizenship and Education.—A teacher's course, as outlined by the State Board of Education, and required of all candidates for a teaching certificate of any grade in California.
3 units, autumn and *summer quarters (ALMACK) MWF 8
autumn, 125; spring, 2; summer, 128

165. Educational Psychology, Introductory.—A general introductory course, intended primarily for teachers and undergraduate students. Lectures, demonstrations, recitations, reports. Prerequisite: Psychology 51, or the equivalent.

4 units, autumn and *summer quarters (STONE) MTThF 11
summer, 14

170. Juvenile Problems in Education.—A study of the extent, causes, and prevention of juvenile delinquency, mental deficiency, and other social irregularities related to the work of the public schools and state institutions. Special attention is given to the recent juvenile research developments in California, and to the newer methods of dealing with exceptional children.

2½ units, 1st half (WILLIAMS) MTWThF 9
summer, 32

175. Education and Modern Social Problems.—A discussion of principles in connection with the following topics: The distribution of educational opportunity; federal aid; education and industry; education and the problems of citizenship and nationality; Americanization of aliens; family, church, and school; liberal education; professional ethics; teachers' unions and organizations; the democratic principle in school administration.

5 units, summer quarter (DAVIDSON) MTWThF 9
summer, 22

180. History of Education in America.—A study of the evolution of American educational ideals and practices, with special reference to the origin and development of those features of our present-day practices which are most characteristically American. Lectures, following a text, assigned readings, and the investigation of an assigned topic.

3 units, summer quarter (CUBBERLEY) [Not given in 1922–23]

185a. History of Education.—A study of the development of educational practices and traditions through the Greek, Roman, mediaeval, and early modern periods in Europe, with the chief emphasis on the foundations that underlie and the forces that have produced our western civilization and educational systems. Study of a text and sources, with discussions.

4 units, winter quarter (CUBBERLEY)
2½ units, summer quarter, 1st half (ALMACK) MTThF 4
winter, 18; summer, 40

185b. History of Education.—A continuation of course 185*a*, dealing with the period from about 1750 to the present, tracing the evolution of modern state school systems, and studying the nineteenth century forces which have so profoundly modified life and education.

4 units, spring quarter (CUBBERLEY)
2½ units, summer quarter, 2d half (ALMACK) MTThF 4
spring, 24; summer, 33

188. Graphic Methods of Presenting Facts.—This course is designed to give practice in the methods which are serviceable in the popular portrayal of statistical data. In addition to graphic presentation, some attention will be devoted to a consideration of the merits of various tabular arrangements of material and to desirable methods of school publicity. There are no prerequisites to the course, but a knowledge of

lettering is desirable. Intended primarily to show prospective school officers how best to display statistical facts.

2 units, winter quarter (ALMACK) TTh 9
2½ units, *summer quarter, 1st half (WILLIAMS) TTh 8
winter, 19; summer, 19

190. Elementary Statistical Methods.—A study will be made of the various kinds of statistical series and the properties of each. The purpose of the first part of the course will be to discover what constitutes the significant features of a body of data. Opportunity to obtain practice in the computation of the important constants of distributions will be given; also in the use of calculating machines and other aids to computation. The approach will be inductive, starting with measures and having as its object the discovery of the statistical resources which are available for making data reveal their story. Psychology 60 may be accepted instead of this course.

4 units, winter, *spring, and *summer quarters (KELLEY) MTThF 8
winter, 29; spring, 8; summer, 18

192. Educational Tests and Measurements.—A course dealing with the use and interpretation of educational tests and scales in the administration and supervision of instruction.

4 units, winter and *summer quarters (KELLEY) MTThF 10
winter, 17; summer, 25

195. Principles of Secondary Education.—A course dealing with the aims, purposes, and underlying principles of secondary education, intended for those preparing to teach in secondary schools, and required of all candidates for the California High School Recommendation. Open to seniors and graduate students only.

3 units, autumn and *spring quarters (PROCTOR) MWF 8
autumn, 49; spring, 67

196. The Junior High School.—This course will deal with the development, organization, and administration of the junior high school. Methods of teaching, curriculum, types of buildings, etc., will be considered. Particularly designed for those who are candidates for intermediate certificates, or expect to become supervising principals.

2 units, autumn, *spring, and summer quarters (PROCTOR) TTh 8
autumn, 83; spring, 81; summer, 69

198. Vocational Education and Guidance.—A course in principles, methods, and literature of vocational education and vocational guidance. Consideration will be given to methods of vocational guidance in high schools and to the organization and administration of vocational and part-time education under state and national laws. The course will be designed to meet the needs of vocational counselors, directors of vocational part-time education, and high school principals.

3 units, winter quarter (PROCTOR) MWF 8
2 units, summer quarter, 2d half (PROCTOR) MTWThF 8
winter, 23; summer, 50

199. Methods and Management of Instruction.—A practical course in the methods and management of secondary instruction. The psychology of the high school subjects will be considered, and opportunity for directed observation of expert secondary instruction will be given. This course is intended to be a preparation for practice teaching, and should be taken before course 201.

2 units, autumn and *spring quarters (PROCTOR) TTh 9
autumn, 39; spring, 53

201. Practice Teaching.—Practice in the handling of classes and the giving of instruction, with accompanying conferences, six units of credit in such work being required of all inexperienced teachers, by the rules of the State Board of Education, for a California High School Teacher's Recommendation. This may be arranged for at the University, at the State Teachers' College, San Jose, or at any state normal school in California. Those who desire to do practice teaching should secure from the Secretary of the School of Education, or from the Director of Teacher Training, a blank form of application for a practice-teaching position, and fill out and file the same with the Director of Teacher Training during the quarter preceding the one in which they desire to fulfill their practice teaching requirement. Prospective cadet teachers should confer in advance with Professor Proctor. Conference with all practice teachers required each week.

3 units, autumn, *winter, and *spring quarters (Proctor) Conference M 4:05–5

autumn, 42; winter, 80; spring, 43; summer, 1

202. Criticism and Supervision of Instruction.—A few advanced students, who have had sufficient teaching experience, will be allowed to undertake the personal investigation, in the schools of the vicinity, of problems in instruction or supervision. Collateral reading and detailed written reports will be required. Enrollment only after conference with the instructor concerned.

1 unit, winter and *spring quarters (Proctor)
winter, 2; spring, 1

205. Administrative Problems in Secondary Education.—A number of practical problems relating to the administration of a secondary school, such as organization, curricula, teaching staff, community relationships, part-time education, etc., will be considered. A specific problem will be assigned for individual investigation by each student electing the course. Open to those who have had course 195 or teaching experience, and especially intended for those preparing for administrative work in the secondary field.

2½ units, summer quarter, 1st half (Proctor) MTWThF 9
summer, 63

209. Reading Seminar in Problems of High School Administration.

1 unit, winter quarter (Proctor)
winter, 7

210. Reading Seminar in Vocational Education.

1 unit, spring quarter (Proctor) Alt. T 7:30–9:30
spring, 16

212. Education and Character, Advanced.—A continuation of courses 140 and 142. Open to students who have had either of these courses or its equivalent.

3–5 units, spring quarter (Davidson) Hours to be arranged

215a. Educational Psychology, Advanced.—Original endowment, mental development, individual differences in relation to heredity, sex, and environment. Lectures and class reports. Prerequisites: Psychology 51 and 165, and either Psychology 60 or Education 190.

4 units, winter quarter (Terman) MWF 11

215b. Educational Psychology, Advanced.—A critical survey of the literature of learning, formal discipline, and work and fatigue, with special reference to the school program. Lectures and class reports.

Prerequisites: Psychology 51, 55, and 165, and either Psychology 60 or Education 190.

4 units, spring quarter (TERMAN) MWF 11

220. Advanced Statistical Methods.—This is a continuation of course 190 and will deal primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores will be treated, with particular application to educational and mental test data and problems. Education 190, or Psychology 60, is a prerequisite.

4 units, winter quarter (KELLEY) MTThF 8

225. Mental Tests.—An introductory course, dealing with the psychological principles of mental testing, test procedure, and Binet and group test and practical applications. Prerequisites: Psychology 51, and either Psychology 60 or Education 190. Course 55 in Psychology must also accompany or precede.

4 units, winter and *summer quarters (MERRILL) TTh 3–5

226. Mental Tests.—Essentially a laboratory course, with one or two lectures weekly. Important types of mental tests will be subjected to experiment and critically evaluated. Course 225 is a necessary prerequisite.

spring quarter (MERRILL) Hours by arrangement

230. City School Administration.—A study of the educational, financial, and administrative principles underlying the proper administration of school systems in cities, with a view to the establishment of principles of action, together with a historical study of the origin of American administrative problems. A thesis on some problem in city school organization or administration or a survey of some city school system required of each student.

4 units, winter quarter (CUBBERLEY) MWF 9

autumn, 27

231. Public School Administration.—The general organization of education in the United States,—state, county, and city,—with a preliminary study of the problems and interrelationships of each. This followed by a more detailed study of the educational, financial, and administrative principles underlying the proper administration of school systems in cities, with a view to the establishment of principles of action. Parallel with this study a historical study of the origin of American administrative problems will be carried along.

5 units, summer quarter (KEMP)

summer, 20

233. The Principal and His School.—A practical course, dealing with the organization and administration of a single school, the organization and supervision of instruction, school extension, community relationships, etc.

3 units, spring quarter (ALMACK) MWF 10

2½ units, summer quarter, 2d half (ALMACK) MTWThF 10

spring, 17; summer, 34

235. School Surveys and Educational Diagnosis.—A study of the literature relating to school surveys and other forms of educational measurements as a basis for the investigation of practical problems in school administration and supervision. How to organize and conduct a school survey, what to look for, how to collect and interpret data, and how to

set forth the results of the investigation will be important features of the course.
4 units, winter and *summer quarters (SEARS) MTThF 2
winter, 19

237. Hygiene of the School Plant.—A study of the fundamental problems involved in schoolhouse planning and construction, including standards of construction, unit cost, types of buildings, and building surveys.
3 units, winter quarter (ALMACK) MWF 10
winter, 10

240. The Elementary School Curriculum.—A study of the principles underlying the organization of subject-matter for courses in the elementary school, including a critical examination of curricula, syllabi, and school texts in the light of their function in the teaching and administration of the curriculum.
3 units, autumn quarter (SEARS) MWF 10
autumn, 10

242. Organization and Supervision of Elementary Education.—A course dealing with the more important problems of organization, management, and supervision of the elementary school, including such topics as grade, departmental, group, and individual systems of class organization; typical promotion schemes; program making; time allotment; grades and marks; records and reports; attendance, and retardation.
4 units, winter quarter (SEARS) MWF 10
4 units, summer quarter (SEARS) MTThF 3–4
summer, 24

250. State School Administration.—A study of the educational principles underlying the proper administration of school systems in states and counties, and involving a comparative study of the school laws and school systems of the various American states. The course includes a study of such topics as federal and state policy, forms of control, revenue and its apportionment, the state and the teacher, the state and the child, private and sectarian education, and state oversight and control.
4 units, spring quarter (CUBBERLEY) MTThF 3

251. Current Problems in Public Education.—A seminar type study and discussion of current problems in the organization and administration of public education. Opportunity for individual and group investigations in the following fields: The organization of a national program of education; problems in state and country school administration; problems in the organization of elementary and secondary administrative units; problems in the administration of teacher training institutions.
4 units, summer quarter (KEMP) MW 2–4
summer, 19

255. School Finance.—A study of educational finance, including such topics as sources of finance, costs, credit financiering, budget making, and accounting.
4 units, autumn quarter (SEARS) MW 1–3
autumn, 17

260. Practical Administrative Problems.—A study and discussion of a number of practical problems in the organization and administration of a system of public instruction, in cities. Limited to advanced students who have had course 230 or its equivalent, and administrative experience.
3 units, winter and *spring quarters (CUBBERLEY) TTh 3–4
winter, 17; spring, 23

262. Seminar in Administrative Problems.—Open only to properly qualified students who have had satisfactory preliminary courses and experience in school administration. The course will deal with finance problems in 1923–24.

3–5 units, autumn, *winter, and *summer quarters (CUBBERLEY, SEARS) TTh4–5:30

autumn, 12; winter, 12; summer, 10

265. Seminar in Social Problems.—Devoted to problems in character study and character training, and to certain sociological aspects of public education. Open by permission.

3 to 5 units, summer quarter (DAVIDSON) TTh 2–4

summer, 10

268a-b. Intelligence Tests and the Psychology of Endowment.—A seminar and thesis course. Tests of general intelligence, special abilities, character and personality; the psychology of genius; mental inheritance; race differences, etc. A two-quarter course. Intended for same class of students, and alternates with 267.

4 units, autumn and winter quarters (TERMAN) TTh 3–5

270. The Measurement of Non-Intellectual Functions.—Essentially a research course. Attention will be given to the analysis of mentality; to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon problems of guidance will be stressed. Admission by permission of the instructor.

4 units, spring quarter (KELLEY) MTThF 10

spring, 9

285. Thesis Work.—In certain courses, students may be given an additional unit of credit on presentation of a satisfactory thesis on an assigned topic, embodying the results of independent work. The consent of the instructor is necessary before registering.

1 unit, any quarter

autumn, 11, 2, 6; winter, 14, 11; spring, 20, 15, 3, 1; summer, 4

290–99. Special Courses.—In addition to the courses listed above, special work in independent investigation will be provided for students prepared to do such advanced work, the nature of the investigation being determined by the student's preparation and needs. Permission to register for any of the following special courses, and the number of units of credit to be given, is subject to individual arrangement. Meetings of the different groups will be arranged for from time to time, usually in the evenings, for reports as to progress, discussion, and criticism.

The members of the instructing staff stand ready to supervise independent investigations in the following fields:

290. Problems in the history of education. (CUBBERLEY)

summer, 4

291. Problems in the theory of education. (DAVIDSON)

293. Problems in the organization and administration of elementary education. (SEARS, KELLEY)

summer, 8

294. Problems in the organization and administration of secondary education. (PROCTOR)

autumn, 1; winter, 2; spring, 4; summer, 13, 19

295. Problems in state, county, and city school organization and administration. (CUBBERLEY, SEARS)

297. Problems relating to the school plant. (ALMACK)

summer, 8

298. Problems relating to educational tests, measurements, and statistical procedure. (KELLEY)
summer, 9
299. Problems in intelligence testing and educational psychology. (TERMAN)

II. Courses for Teachers of Special Subjects

A number of special courses of instruction, and groupings of courses, designed to prepare teachers for special work in the public schools, have been arranged and are described in the *Announcement of the School of Education* (issued in June). These include courses designed to prepare commercial teachers, manual arts teachers, teachers of home economics (in connection with the San Jose State Teachers' College), and teachers of the various high school subjects.

III. Courses in Other Departments

The following Teachers' Courses, in other departments, ordinarily designated by the number 200, are designed for students preparing to teach special subjects in secondary schools, and are offered in connection with the preparation in the teaching majors and minors, as described in the *Announcement of the School of Education*. Such courses are usually necessary for the Teacher's Recommendation, and may be counted, to the extent of six units, as part of the work required in education. (See *Announcement of the School of Education* for further information.)

a. TEACHER'S COURSE IN CHEMISTRY.—[See Department of Chemistry.]
b. TEACHER'S COURSE IN DRAWING.—[See Division of Graphic Art.]
c. TEACHER'S COURSES IN ENGLISH.—[See Department of English.]
d. TEACHER'S COURSE IN FRENCH.—[See Department of Romanic Languages.]
e. TEACHER'S COURSE IN GERMAN.—[See Department of Germanic Languages.]
f. TEACHER'S COURSE IN GREEK.—[See Department of Classical Literature.]
g. TEACHER'S COURSE IN HISTORY.—[See Department of History.]
h. TEACHER'S COURSE IN LATIN.—[See Department of Classical Literature.]
i. TEACHER'S COURSE IN ORAL EXPRESSION.—[See Department of English.]
j. TEACHER'S COURSE IN PHYSICS.—[See Department of Physics.]
k. TEACHER'S COURSE IN SPANISH.—[See Department of Romanic Languages.]
l. TEACHER'S COURSE IN COMMERCIAL TRAINING.—[See Department of Economics.]

DIVISION OF GRAPHIC ART

ARTHUR BRIDGMAN CLARK, Professor.
CHLOE LESLEY STARKS, Assistant Professor.
RUDOLPH P. SCHAEFFER, Lecturer (Winter and Spring Quarters).
ESTELLA HOISHOLT, Lecturer (Summer Quarter).

The work aims primarily to prepare students for positions as teachers of drawing and art in secondary schools. Many of the courses are also

suitable for the practical and general cultural needs of students in other departments.

Intending teachers of art may register with Graphic Art as their major subject.

Requirements for Graduation

A. As Preliminary to a Fifth Year.—50 units in Graphic Art, 21 to 51 units (the completion of all except 9 units) of a teaching major or teaching minor, other than Graphic Art: *9–13 units in Education applicable to the Secondary Teacher's Certificate. (180 units as a total in all courses. The requirements of various departments for teaching majors and minors are set forth in the *Announcement of the School of Education.*)

B. Including Special Certificate of the Manual and Fine Arts Type Courses as required by the State Board of Education,—67 units in Graphic Art and Drafting; *23 units in Education; 45 units (15 each in any three) teaching majors or minors; balance of 180 units, any courses in the University. (See *Announcement of the School of Education.*) This certificate permits the holder to teach only the special subjects in which he is recommended, and not the so-called "regular" subjects of the high school, not even in part.

C. Master's Degree, Including Secondary Teacher's Certificate. —One graduate year including the following: 26 units including thesis, in Graphic Art; *11 units in Education, (or enough to make the required 31½ units); 9 units in the teaching major or minor (other than in Graphic Art), or enough with the courses taken previously to complete this major and minor.

[*Course 200 in Graphic Art may count either as Education or as Graphic Art, but not as both in the same schedule.]

1. Still-life and Quad Sketching.—Fundamental principles in blocking, proportion, and light and shade. Subjects, still-life and out-of-door drawings of parts of the arcades of the University. The drawings are large (20″ x 25″), and done with charcoal and colored crayon. The aim of the course is to give readiness and reasonable accuracy in representation.

3 to 5 units, autumn quarter (Starks) MTWThF 1:05–4:05
autumn, 10

2. Landscape. — Working outdoors in pencil, charcoal, and colored crayons. The chief work of the class is bent toward large 20″ x 25″ drawings in color, one being made each day, thus developing power to think intently on the essential elements in design, of form, color value, and the selection of significant elements which make pictures. As a necessary accompaniment to the large drawings, each student carries a sketch book in which small notes of compositions are made. From discussions and selection of these the larger subjects are chosen. Open to all students.

5 units, spring and summer quarters (Starks) MTWThF 9–12
spring, 13

3. Design in Form and Color.—Great advance has been made in recent years in design, both in the development of rich color in surface decoration as applied to textiles, and in interior decoration. To develop power

in creative expression and color arrangement in prismatic as well as grayed colors, is the object of the course.

The work is done in tempera color with the brush directly, training in the most practical way habits of color analysis and clear thinking. A series of problems is given which begins with the color wheel and the simplest geometric form and leads on through easy steps to elaborate textile designs, rich wall decorations, and the general color design of interiors. This course is prerequisite to Textiles, and Advanced Design.

5 units, autumn, winter, and *summer quarters (STARKS) Lec. MTWThF 8; Lab. hours at student's convenience
autumn, 8; summer, 10

4. Perspective.—A series of problems in form presentation; in part free-hand, in part drawn with instruments, and involving the various principles of perspective and shades and shadows. The latter part of the course involves drawings from actual buildings. Open to all students and recommended as preparation to course 5.

5 units, autumn quarter (CLARK) MTWThF 10
autumn, 16

5. Art of House Design.—The course is a systematic study of the fundamental principles which underlie taste, convenience, and economy in house designing and furnishing. The principles and necessity of civic planning are also given brief consideration. The subject matter treated is of such universal interest and importance that the exercises assigned are kept well within the accomplishment of earnest students even though they may have had but little training in drawing. However, a great deal of drawing, both mechanical and freehand, is required in the course as the most efficient means to the understanding of design in proportion, line, and surface, and sensitiveness to beauty of all kinds. The first half deals with types of exteriors and their design and plans; the second half with interior treatment, furniture, yard, and civic planning. A few trips of observation will be made in the suburban towns toward San Francisco. Previous experience in free-hand and perspective drawing will facilitate advancement in the course. Open to all students, but courses 1 and 4 are recommended for preparation.

5 units, spring and *summer quarters (CLARK) MTWThF 10
winter, 17; summer, 30

6. Lectures on Painters.—First half: The Renaissance from Giotto to Velasquez. Second half: The Nineteenth Century and Present Time. The course is conducted with the use of lantern slides, each student being furnished with a collection of prints selected from the University Prints Series, and blue-prints prepared for this course.

5 units, autumn, *winter, and *summer quarters (CLARK) MTWThF 9
autumn, 27; winter, 49; summer, 39

100. Handicrafts: Pottery.—The entire process of pottery making from raw materials, including designing, modeling, casting, glazing, and firing bowls, tiles, vases, etc., is carried on by the students in one class room which is equipped with kiln and pebble mills. Open to students who have had three units of technical work in drawing or design.

5 units, autumn, *spring, and *summer quarters (CLARK) MTWThF 1:05–4:05
autumn, 5; spring, 5; summer, 9

101. Handicrafts: Metal Work.—Making bowls, sconces, lampshades, etc., from copper, and simple articles of jewelry in silver. Processes of raising and chasing metal, and of setting semi-precious stones.

5 units, spring and summer quarters (CLARK) [Not given in 1922–23]

102. Handicrafts: Textiles.—The decoration of textiles in articles for personal use and interior decoration, block-printing, decoration of textiles by dyeing, embroidering and batik. Open to all students who have had course 3 or its equivalent.

5 units, winter quarter (STARKS) MTWThF 1:05–4:05

103. Advanced Color Design.—The application of line, form, and color, as well as textures and materials, to the design of room interiors. Course 3 is prerequisite.

5 units winter quarter (SCHAEFFER) MTWThF 8
winter, 7, 8

104. Science Drawing.—A course designed to assist students in scientific illustration. It includes the drawing of simple scientific subjects in pen, outline, line and stipple shading, wash, line and wash. Especial attention is paid to the needs of individual students. Open to science students on advice.

3 units, autumn quarter (STARKS) 8–12 by arrangement
autumn, 3

105. Commercial Art.—Autumn quarter, study of figure proportions and representations as used in commercial work. Spring quarter, lettering and poster making. Open only to upper division students.

5 units, autumn and *spring quarters (FARMER) MTWThF 1:05–4:05
[Not given in 1922–23]

200. Teachers' Course.—For intending teachers of art. Discussions of the aims and methods in drawing and art instruction in the public schools, technical work in review and in preparing courses of study. Open only to upper division students.

3 units, winter and summer quarters (CLARK, HOISHOLT) MWF 11
summer, 6

201. Special Courses.—Advanced work in connection with courses 1 to 100 will be arranged for graduate students in accordance with their technical needs. The quality of work done rather than the specific course determines when the work is of graduate or of undergraduate character.

For students working for the master's degree weekly conferences are held for direction of work and reports.

(CLARK) By arrangement
spring, 1

ENGINEERING

A. ENTRANCE SUBJECTS

Entering students whose major work is to be in any engineering department should be thoroughly prepared in elementary mathematics, with entrance credit in algebra (at least one and one-half units), plane geometry, and plane trigonometry, in order to be able to take the first year's work in applied mathematics for engineers. Furthermore, it is advisable for them to have entrance credit in mechanical drawing.

Students who expect to complete the requirements for graduation from the Civil Engineering Department in four years should enter with credit for two high-school units in one foreign language, one unit in chemistry, one unit in biological science, and one unit in history, in addition to the foregoing preparation in mathematics.

B. General Courses

I. APPLIED MATHEMATICS

[See courses announced by Department of Applied Mathematics.]

II. GENERAL TECHNICAL COURSES

1. Linear Drawing.—A training in the use of drafting implements to enable the student to construct accurate pencil drawings and make clean-cut ink lines. Open to all students, and required of those whose major subject is Civil, Mechanical, Electrical, or Chemical Engineering, or in Geology and Mining, whether or not they have entrance credit in mechanical drawing. This requirement is waived, however, for a student who satisfies the instructor that he has had the equivalent of this course, by submitting certified work in linear drawing or by passing a special examination. The instruments and materials for this course cost from thirty to forty dollars.

1 unit, autumn, *winter, and *spring quarters (Thomas)
W 1:05–4:05, or F 1:05–4:05

autumn, 59; winter, 25; spring, 21

2. Lettering.—A training in engineering lettering and title making. Open to all students, and required of those whose major is Civil, Mechanical, Electrical, or Chemical Engineering, or Geology and Mining, whether or not they have entrance credit in mechanical drawing. This requirement is waived, however, under those certain conditions specified under Linear Drawing, above.

1 unit, autumn, *winter, and *spring quarters (Thomas)
W 1:05–4:05, or F 1:05–4:05

autumn, 75; winter, 46; spring, 30

3. Descriptive Geometry.—Open to students who have completed or are taking Engineering 1 and 2, or have had their equivalent. It is required of students whose major is Civil, Mechanical, Electrical, or Chemical Engineering, or Mining and Metallurgy.

This course deals with principles and methods used in making with mathematical exactness drawings of objects and geometrical magnitudes, and in solving problems involving their space relations, without going into details of shop notes, field notes, machine drawing and design, and topographic and geologic mapping, to which subjects it serves as a preliminary.

The principles embodied in the course are limited to those pertaining to the "method of choosing new projection planes," the method almost universally used in Engineering practice.

4 units, winter quarter (Cutter)
Rec. TTh 8 or 11; Dft. MT 1:05–4:05, or ThF 1:05–4:05

winter, 145

106. Hydraulics.—Lectures: Fluid pressure and equilibrium, flow of water through orifices, over weirs, in open and closed conduits. Laboratory: Calibration of instruments. Measurement of pressure, velocity, and flow and friction loss of water under various conditions. Open to students who have completed course *3a* in Applied Mathematics.

5 units, spring quarter (Moser)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05

spring, 89

[Note.—See also Hydraulic courses listed under Mechanical Engineering.]

110. Mechanics of Materials.—Lectures: Strength and elastic properties of the ordinary materials of engineering construction. Simple

tension, compression, and shear. Flexure, with application to simple, continuous, and non-homogeneous beams. Long columns, torsion, combined stresses, resilience, etc. Laboratory: Testing strength and elastic properties of materials and structures. Open to students who have completed courses *3a* and *3b* in Applied Mathematics.

5 units, autumn quarter (Moser)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05
autumn, 92; summer, 10

111. Mechanics of Materials.—Continuation of Engineering 110.

5 units, winter quarter (Moser)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05
winter, 41

Laboratory Fees.—Courses 3, 110, and 111, $1 each; 106, $2.

CIVIL ENGINEERING

Charles David Marx, John Charles Lounsbury Fish, Leander Miller Hoskins, Charles Benjamin Wing, Professors.
Charles Moser, Associate Professor.
Earl Charles Thomas, Assistant Professor.

A. Topographic Engineering

20. Elementary Surveying.—Recitations: coördinates of surveying; measurements; errors; surveying methods. Field: exercises in the care, use, and adjustment of instruments; traverse surveys; stadia surveys; leveling; base line measurement and triangulation; astronomical determination of azimuth. Drafting Room: plotting and adjusting traverses; computing areas; plotting profiles; map interpretation. Prerequisites: Engineering 1 and 2, Applied Mathematics 1*a*.

5 units, autumn and *winter quarters (Thomas)
Rec. TTh 11; Field and Dft. MTW 1:05–4:05
autumn, 48; winter, 14

21. Advanced Surveying.—Land surveying; topographic surveying; introduction to city, mine, hydrographic and photographic surveying. Prerequisite: course 20.

5 units, spring quarter (Thomas) [Not given in 1923–24]
spring, 29

23. Special Surveying.—Special courses intended for students who have completed course 20, or who have had practical experience in surveying, and who are interested in continuing some particular branch of surveying. Open only by permission.

1, 2, or 3 units, autumn, *winter, and *spring quarters (Thomas)
By arrangement
autumn, 1; winter, 6; spring, 2

19. Map Reading.—Interpretation of maps, including topographic maps.

1 unit, autumn quarter (Thomas)
autumn, 41

24. Elementary Surveying.—An abridged course intended for Mechanical Engineering students. Care and adjustment of instruments; field exercises with tape; pocket instruments; level and transit. The application of plane surveying methods to mechanical engineering problems will be considered. Open to students whose major subject is Mechanical Engineering and to others only by permission. Prerequisites: Engineering 1 and 2 and Applied Mathematics 1*a*.

2 units, winter quarter (Thomas) Field and Dft. MT 1:05–4:05
winter, 12

25. Engineering Surveys.—The application of surveying to engineering problems. Reconnaissance, preliminary, location, construction, and maintenance surveys pertaining to railroads, highways, waterways, etc. Prerequisites: courses 20 and 21.

5 units, autumn quarter (1923–24) (THOMAS) Rec. TTh 9; Field and Dft. WThF 1:05–4:05
autumn, 20

126. Special Engineering Surveys.—Courses arranged to meet special needs of students who have completed course 25 above, or have had considerable experience in engineering surveys. (Field work can be done only when two or more students elect to pursue the same work.) Open only by permission.

1 to 5 units (THOMAS) By arrangement
winter, 2

B. ENGINERING ECONOMICS

130. Engineering Economics.—Engineer in field of service, choice of investment opportunity, estimating, business units, business statistics, depreciation, valuation, economics of service. (Written recitations and problems.) Open to those who have 90 units of credit, and to others by permission.

3 units, autumn, *winter, and *spring quarters (FISH) Rec. MWF 8
autumn, 15; winter, 18; spring, 18

131. Engineering Estimates and Reports.—Each student makes preliminary plans and estimates in connection with two or more structures proposed for a stated service, makes economic comparison and choice based on the estimated costs, and prepares a report on the object, conditions, methods, and result of his investigation. The course offers training in analyzing problems of choosing structures, logically planning steps of an engineering investigation, executing the steps (including use of references, of cost data, of methods of estimating, and arrangement and record of computation), and writing reports. Roughly, one-third of the time is devoted to looking up references, one-third to drawing and computing, and one-third to writing and revising the report. Open to those who are taking or have completed course 130, and to others by permission.

1 to 5 units, autumn, *winter, and *spring quarters (FISH) By arrangement
autumn, 7; winter, 3; spring, 3

C. RAILROAD ENGINEERING

Railroad Surveying.—[See under Civil Engineering 25 (Engineering Surveys).]

143. Railroad Construction.—Field or office work assigned to individuals, according to their needs, along one or more of the following lines: (1) Excavating methods and plants. (2) Situation surveys; preliminary plans and estimates; choice of structure and site; working drawings; staking out; inspection; estimates of work done. (3) Collecting, recording, and filing information; instructions and reports. A formal report is required on each engineering problem assigned. Open to students who have completed courses 25 and 130, and to others by permission.

1 to 5 units, autumn, *winter, and *spring quarters (FISH) By arrangement
autumn, 1; winter, 1

144. Railroad Location.—Locomotive tractive force and resistances thereto, velocity profile, momentum grade. Traction problems involving inter-relation of train weight, grade, speed, and characteristics of locomotive. Value of change in distance, curvature, rise and fall, and ruling grade, based on analysis of operating expenses. Pusher grades, balanced grades for unequal traffic and for adjacent divisions. Prerequisites: courses 25 and 130.

5 units, winter quarter (Fish) By arrangement

145. Railroad Reconnaissance.—An examination of country for feasible routes between two designated points. Collection and reduction of data for determining the relative merits of two or more feasible routes, and for estimating the promise of a road proposed to be built on the most favorable route. Prerequisites: courses 25, 130, 143, and 144.

5 to 10 units, autumn, *winter, and *spring quarters (Fish) By arrangement

D. Structural Engineering

150. Elements of Design.—(1) Materials (see Mining and Metallurgy 105). (2) Analytical and graphical determination of stresses in simple structures. (3) Investigation of distribution of stresses in structural details. Open to students who have completed Engineering 1, 2, and 3, and have taken or are taking Engineering 110 and Mining and Metallurgy 105.

3 units, autumn quarter (Wing) MTW 1:05–4:05

autumn, 22

151. Elements of Design.—(1) Wood, stone, brick, lime, cement, etc., studied from engineering standpoint. (2) Bearing power of soils, distribution of pressure, and details of design of simple sub-structures. (3) Designs, working drawings, bills of materials, and estimate of cost of some simple structure, such as a mill building or highway bridge. (4) Testing physical properties of cement and other masonry materials. Prerequisite: course 150.

5 units, winter quarter (Wing)
Lec. MWF 11; Dft. and Lab. MTW 1:05–4:05

winter, 20

152. Elements of Design.—This course completes the work undertaken in course 151.

5 units, spring quarter (Wing, Thomas)
Lec. MWF 11; Dft. and Lab. MTW 1:05–4:05

spring, 18

153. Elements of Design.—A short course to meet the requirements of students taking their major in Mining, Mechanical, Electrical, or Chemical Engineering. Special applications are made to hoisting and conveying structures, mill buildings, and central station buildings. Open to students who have had Engineering 1, 2, 3, 110, and Mining and Metallurgy 105.

3 units, quarter by arrangement (Wing) By arrangement

autumn, 3; winter, 4 spring, 9

154. Structural Design.—Determination of stresses in modern types of bridges, including cantilever and swing spans, masonry arches, and arch ribs; discussion of most economical types, spans and dimensions of bridges and bridge members; study of methods of constructing subaqueous sub-structures, shop methods, erection, inspection of material, specifications, and other factors influencing the design of structures.

Designs are made by each student to fulfill actual conditions. Prerequisite: course 152.
5 units, autumn quarter (WING) Lec. TTh 10; Dft. WThF 1:05–4:05
autumn, 18

155. Structural Design.—Continuation of course 154.
5 units, winter quarter (WING) Lec. TTh 10; Dft. WThF 1:05–4:05
winter, 18

156. Structural Design.—Continuation of course 155.
3 units, spring quarter (WING) By arrangement
spring, 3

E. Hydraulic Engineering

160. Water-Supply Engineering.—Sources of supply. Collection and storage of water for water supply of towns or for irrigation. Settling, filtering, conducting, and delivering of water, including the study and design of all accessory works. Prerequisites: Engineering 3, 106, 110, and 111, and Civil Engineering 151 and 152.
5 units, autumn quarter (MARX)
Lec. MTWThF 10; Dft. MTWThF 1:05–4:05
autumn, 19

161. Water-Supply Engineering.—Continuation of course 160.
5 units, winter quarter (MARX)
Lec. MTWThF 10; Dft. MTWThF 1:05–4:05
winter, 18

162. Water-Supply Engineering.—Continuation of course 161.
5 units, spring quarter (MARX) Lec. MWF 10; Dft. MT 1:05–4:05
spring, 14

163. Sanitary Engineering.—Including sewerage of towns and drainage of lands. Special attention will be given to the study of all municipal sanitation problems, such as removal of sewage, destruction of garbage, construction, maintenance, and sweeping of streets and pavements. Prerequisite: course 162.
5 units, spring quarter (MARX) By arrangement
spring, 22

164. Construction of Canals, River and Harbor Improvements.—Lectures and designing as per arrangement. Prerequisites: Engineering 106 and Civil Engineering 151 and 152.
3 units, autumn, winter, and spring quarters (MARX) By arrangement
winter, 3

165. Technical Seminary.—Study of German and French technical journals. Open only to fourth-year students in Civil Engineering.
3 units, autumn, *winter, and *spring quarters (MARX) (By arrangement
autumn, 15; winter, 3

166. Contracts and Specifications.
spring quarter (MARX)
spring, 1

LABORATORY FEES.—Course 20, $3; 21, $4; 22, $2; 24, $2; 25, $3; 151, $2.

A Four-Year Curriculum in Civil Engineering

Department and No.	Subjects	Units: Autumn	Winter	Spring
	First Year			
	Language, Literature, etc.	3	3	3
	Citizenship	4	4	4
Appl. Math. 1a	Elementary Analysis	5		
Appl. Math. 1b	Elementary Analysis		5	
Appl. Math. 2a	Differential Calculus			5
Engineering 1	Linear Drawing	1		
Engineering 2	Lettering	1		
Engineering 3	Descriptive Geometry		4	
Civ. Engr. 20	Elementary Surveying			5
		14	16	17
	Physical or Military Training	1	1	1
		15	17	18
	Second Year			
English 2	English Composition		3	3
	History	3	3	3
Appl. Math. 2b	Integral Calculus	5		
Appl. Math. 3a	Theoretical Mechanics		5	
Appl. Math. 3b	Theoretical Mechanics			5
Physics 11	Statics Laboratory		1	
Physics 12	Dynamics Laboratory			1
Civ. Engr. 21	Advanced Surveying	5		
Civ. Engr. 25	Engineering Surveys			4
Economics 3	Accounting		3	
Mech. Engr. 12	Machine Drawing	3		
		16	15	16
	Physical or Military Training	1	1	1
		17	16	17
	Third Year			
Physics 13	Heat		4	
Physics 14	Electricity			4
Engineering 110	Applied Mechanics	5		
Engineering 111	Applied Mechanics		5	
Engineering 106	Hydraulics			5
Civ. Engr. 150	Elements of Design	3		
Civ. Engr. 151	Elements of Design		5	
Civ. Engr. 152	Elements of Design			5
Min. & Met. 105	Metallurgy of Iron and Steel	3		
Geology 1a	Dynamical Geology*	5		
Civ. Engr. 130	Engineering Economics			3
Mech. Engr. 123	Testing of Engines*		4	
		16	18	17
	Fourth Year			
Civ. Engr. 131	Engineering Estimates and Reports*	3		
Civ. Engr. 154	Structural Design*	5		
Civ. Engr. 155	Structural Design*		5	
Civ. Engr. 160	Water Supply Engineering*	5		
Civ. Engr. 161	Water Supply Engineering*		5	
Civ. Engr. 162	Water Supply Engineering*			5
Civ. Engr. 163	Sanitary Engineering*			5
Mech. Engr. 236	Pumping Machinery*		3	
El. Engr. 102, 122	Electricity in Engineering*		3	
El. Engr. 103, 123	Electricity in Engineering*			3
		13	16	13

The asterisk (*) indicates that in special cases the department may accept, as a substitute for the course so marked, some other course.

ELECTRICAL ENGINEERING

HARRIS JOSEPH RYAN, Professor.
JAMES CAMERON CLARK, Associate Professor.
HENRY HARRISON HENLINE, Assistant Professor.
WARD B. KINDY, THEODORE HARDING MORGAN, Instructors.

The department offers courses of instruction for three groups of engineering students:

I. GENERAL GROUP.—Courses 102, 103, 122, and 123, Electricity in Engineering, are offered especially for fourth-year students in civil, mining, and chemical engineering.

II. DYNAMIC GROUP.—Courses 104, 105, 106, 124, 125, and 126 are open to all fourth-year students and are offered especially for students in mechanical engineering.

III. ELECTROTECHNIC GROUP.—The department admits as major students only those who have been granted the Stanford A.B. degree in engineering and who have completed the department's courses 104, 105, 106, 124, 125, and 126; and those graduates of other institutions who present corresponding credits. Major students are recommended for the degree of Engineer in Electrical Engineering upon completion of Electrical Engineering courses 207, 208, 210, 219, 240, and 241, Physics 20 or 100 and Applied Mathematics 100 (37 or 39 units), and electives as approved (6 to 17 units); total, 45 to 54 units.

Beginning with the autumn quarter, 1926, these requirements for the degree of Engineer in Electrical Engineering may be increased from the above numbers to a total of 90 to 108 units.

UPPER DIVISION COURSES

102. Electricity in Engineering.—A course for non-electrical engineering students. Prerequisites: First seven quarters of any of the Stanford engineering curricula and registration in Electrical Engineering 122.
2 units, winter quarter (KINDY) TTh 9
winter, 26

103. Electricity in Engineering.—Continuation of course 102. Prerequisites: courses 102 and 122, and registration in course 123.
2 units, spring quarter (KINDY) TTh 9
spring, 11

104. Direct Current Machinery.—Introductory study of direct current meters, machines, and auxiliaries. Prerequisites: Applied Mathematics 3; Engineering 3 and 111; Physics 15; and registration in Electrical Engineering 124.
2 units, autumn quarter (HENLINE) [Not given in 1922–23]

105. Alternating Current Machinery.—Alternating current circuits, instruments, alternators, and transformers. Prerequisites: courses 104 and 124, and registration in course 125.
2 units, winter quarter (HENLINE) TTh 11
autumn, 64

106. Electrical Machinery.—Induction and synchronous machines, converters, rectifiers, and transmission lines. Prerequisites: courses 105 and 125, and registration in course 126.
3 units, spring quarter (HENLINE) [Not given in 1922–23]

122. Electricity in Engineering.—A laboratory course to accompany course 102. Prerequisite: registration in course 102.
2 units, winter quarter (KINDY) T or Th 1:05–4:05
winter, 25

123. Electricity in Engineering.—A laboratory course to accompany course 103. Prerequisite: registration in course 103.
2 units, spring quarter (KINDY) T or W 1:05–4:05
spring, 12

124. Direct Current Machinery Laboratory.—To accompany course 104. Prerequisite: registration in course 104.
3 units, autumn quarter (HENLINE, KINDY, MORGAN)
[Not given in 1922–23]

125. Alternating Current Machinery Laboratory.—To accompany course 105. Prerequisite: registration in course 105.
3 units, winter quarter (HENLINE, KINDY, MORGAN)
M, W, or F 1:05–4:05, or S 9–12. Quiz by arrangement
autumn, (KINDY) *32;* (MORGAN) *34*

126. Electrical Machinery Laboratory.—A course in the characteristic performance of standard electrical machinery and auxiliary apparatus. Prerequisite: registration in course 106.
4 units, winter quarter (HENLINE, KINDY, MORGAN)
M, Th, or F 1:05–4:05, or S 9–12. Quiz by arrangement
winter, (HENLINE) *24;* (MORGAN) *24*

COURSES PRIMARILY FOR GRADUATES

207. Electrical Engineering.—A course in general practice relating to equipment and methods as affected by the requirements of economics, reliability, and safety. Required of electrical enigneers. Prerequisites: courses 105 and 125.
3 units, spring quarter (RYAN) MWF 8
spring, 57

208. The Electric and Magnetic Circuits.—Class work; essentially a problem course. Prerequisites: courses 106 and 126.
5 units, autumn quarter (CLARK)
autumn, 11

210. Advanced Electrotechnics.—A course developed with particular reference to the study of the problems of long-distance transmission of energy. Prerequisites: course 208 and Applied Mathematics 100.
3 units, winter quarter (CLARK) By arrangement
winter, 4

211. Electrical Engineering Practice.—Guidance for the individual in the study of the Transactions of the American Institute of Electrical Engineers and other literature of practice.
5 units, spring quarter (RYAN) By arrangement
autumn, 1; spring, 22

219. Seminar.—A weekly conference for the discussion of current electrical engineering literature and special topics.
2 units, autumn, winter, and spring quarters (CLARK) By arrangement
autumn, 10; winter, 8; spring, 9

240. High Voltage Laboratory Practice and Research.
5 units, autumn quarter (RYAN) By arrangement
autumn, 11

241. Thesis.—Subjects as approved for the individual Electrical Engineering majors.
4 units, winter quarter; 5 units, spring quarter (RYAN, CLARK)
autumn, 1; winter, 9; spring, 9

242. Research. By arrangement
(Ryan, Clark)
autumn, 3; winter, 9; spring, 6

The Stanford Branch of the American Institute of Electrical Engineers is an organization authorized by the Institute and maintained by the students for the discussion of the Journal of the Institute, and other topics.

Laboratory Fees.—$1 per unit of university credit.

Syllabus Fees.—Applicable to syllabus, lantern slides, and charts: 50c to $1 per course.

MECHANICAL ENGINEERING

William Frederick Durand, William Rankine Eckart, Everett Parker Lesley, Guido Hugo Marx, Professors.
Charles Norman Cross, Lawrence Edminster Cutter, Associate Professors.
Horatio Ward Stebbins, Assistant Professor.
Boynton Morris Green, Instructor.
Robert Henry Harcourt, James Bennett Liggett, Theron James Palmateer, Edward John Stanley, Teaching Specialists.

The following courses constitute the required work of a five years' curriculum leading to the degree of Mechanical Engineer. Students successfully completing the first four years of this curriculum with sufficient additional units for graduation will be granted the degree of Bachelor of Arts. It is expected that the supplementary courses necessary in order to obtain the number of units required for graduation will be elected in some degree among other engineering courses.

First Year.—Citizenship (12 units); Chemistry 7, 9, 4 (7); Applied Mathematics 1*a*, 1*b*, 2*a* (15); Shopwork: M. E. 1, 3, 6 (12).

Second Year.—Foreign Language (9 units); Physics 11, 12, 13 (6); Machine Sketching and Elementary Machine Drawing: M. E. 11, 12 (6); Descriptive Geometry: Engineering 3 (4); Mining and Metallurgy 105 (3); Applied Mathematics 2*b*, 3*a*, 3*b* (15).

Third Year.—History (9 units); Physics 14, 15 (8); Applied Mechanics and Hydraulics: Engineering 106, 110 (10); Shopwork: M. E. 7 (4); Machine Design: M. E. 113 (8); English Composition (6).

Fourth Year.—Machine Design: M. E. 114 (8); Mechanical Laboratory: M. E. 121*, 122, and 123 (9); Technical Reports: M. E. 131 (3); Heat Engines: M. E. 132 and 133 (8); Electrical Machinery: E. E. 104, 105, 124, and 125 (10); Electrical Engineering: E. E. 207 and 126‡ (7).

Fifth Year.—Shop Administration: M. E. 210 (4); Advanced Machine Design: M. E. 216 (4); Mechanical Laboratory Work: M. E. 225, 226 (6); Applied Thermodynamics: M. E. 234 (4); Central Power Stations: M. E. 235 (3); Hydraulic Machinery and Power Stations: M. E. 237 (5); Pumping Machinery: M. E. 236 (3).

The above courses represent the requirements for the student entering

* This course is elective for students who take 7 units of E. E. 126 and 207.
‡ Four units of this course is elective for those who take M. E. 121.

with full entrance credit, including 1½ units in algebra, 1 unit in plane geometry, ½ unit in trigonometry, 1 unit in physics, 1 unit in chemistry, 2 units in one foreign language, 1 unit in history, 1 unit in biological or general science, ½ unit in mechanical or geometrical drawing, and ½ unit in woodwork. For those not bringing this measure of entrance credit the requirements will be correspondingly greater. There will be in the usual case and especially for the student carrying more than the normal number of 15 units registration, a considerable amount of additional time for elective work in the various engineering departments or in other departments of the University. Students whose preparatory records show excellence, not only in mathematics and chemistry, but also in general training, may, with the approval of the instructor, omit Applied Mathematics 1*a*, 5 units. For students offering entrance credit in chemistry, courses 7, 9, and 4 in chemistry (7 units) will be taken in place of 1, 2, and 3, thus offering opportunity for two additional elective units.

Shopwork and Administration

1. Forge Practice.—Three laboratory periods and one lecture per week. Required of Mechanical Engineering students.

4 units, autumn, *winter, and *spring quarters (Harcourt)
autumn, 43; winter, 28; spring, 21

3. Foundry Practice.—Three laboratory periods and one lecture per week. One quarter (4 units) required of Mechanical Engineering students.

4 units, autumn, *winter, and *spring quarters (Liggett) Lec. S 8
autumn, 23; winter, 30; spring, 25

5. Woodworking (prerequisite for M. E. 6).—Three laboratory periods per week. One quarter (3 units) required of students not having entrance credit in woodworking.

3 units, autumn, *winter, and *spring quarters (Stanley)
spring, 4

6. Pattern Making.—Three laboratory periods and one lecture per week. One quarter (4 units) required of Mechanical Engineering students.

4 units, autumn, *winter, and *spring quarters (Stanley) Lec. S 8
autumn, 29; winter, 21; spring, 19

107. Machine Shop Practice.—Three laboratory periods and one lecture per week. Intended for upperclassmen only. One quarter (4 units) required of Mechanical Engineering students. Prerequisites: M. E. 1 and 3.

4 units, autumn, *winter, and *spring quarters (Palmateer) Lec. S 9
autumn, 25; winter, 20; spring, 23

210. Shop Administration.—A course of lectures on workshop organization and administration, factory accounting, wage systems, selection of machinery, factory methods, etc. Prerequisites: courses 1 to 107 inclusive.

4 units, winter quarter (Lesley)

Machine Drawing and Design

11. Freehand Machine Drawing.—Practice in making freehand sketches of machine parts, and their dimensioning in practical form for use in the shop, the sketches being made according to the principles of orthographic projection. The aim is to train the student in the reading of machine drawings through making a considerable number of sketches

from actual machines and machine parts, and at the same time to familiarize him as much as possible with the actual machine parts. Open to all students, and required of students in Mechanical Engineering. (Nine hours a week.)

3 units, spring and *autumn quarters (CUTTER, GREEN) TTh 9–12; MTWThF 1:05–4:05

autumn, 55; spring, 17

12. Elementary Machine Drawing.—Practice in making working drawings of machine parts, and in making tracings from these drawings. The purpose of the course is not only to train the student in the technique of drafting and dimensioning, but also to familiarize him with the elements of machines, and, therefore, no drawings are made from copy, but all are made from the student's own sketches of the actual model. (Nine hours a week in drafting room; three hours' work for one unit credit.) Prerequisites: courses 1, 2, and 3 in Engineering, or their equivalents; and, for Mechanical Engineering students, course 11 in Mechanical Engineering.

3 units, autumn and *spring quarters (CUTTER, GREEN) TTh 9–12; MTWThF 1:05–4:05

autumn, 23; spring, 49

113. Elementary Machine Design.

a. Function of machines; motion, force, and work in machines; analysis of mechanism; velocity, acceleration, and effort diagrams; parallel motions; cams; ratchets; toothed wheels; valve gear analysis and design. The aim is, not merely to present a course in pure mechanism, or kinematics, but also—by the introduction of the consideration of force, work, and energy, as well as motion—to show the purposes for which the mechanisms are used and the manner in which they function.

3 units, winter and spring quarters (MARX) Lec. MWF 8

winter, 51; spring, 51

b. Drafting course applying the principles treated in *a.* (Three hours a week drafting, winter and spring quarters.) (1 unit.) Prerequisites: course 12 in Mechanical Engineering and courses 1, 2, and 3 in Engineering. Courses *a* and *b* must be taken together and are required of students in Mechanical Engineering.

1 unit, winter and spring quarters (GREEN) Dft. W. 1:05–4:05

winter, 51; spring, 52

114. Machine Design.—Study of machine elements, such as bolts and screws; riveted joints and boiler design; keys, fits and fitting; axles, shafts, and spindles; journals, bearings, friction, and lubrication; ball and roller bearings; sliding surfaces; couplings and clutches; gear, belt, rope, and chain transmission systems; flywheels; brakes; springs; frames and supports; cylinders, etc.; leading to the design of complete simple machines. (Two hours a week recitations and lectures, six hours in the drafting-room, throughout the year.) Open to students who have completed course 113 in Mechanical Engineering, course 105 in Mining and Metallurgy, and who are taking course 110 in Engineering; two quarters required of students in Mechanical Engineering.

4 units, autumn, winter, and spring quarters (MARX) Lec. TTh 8; Dft. TTh 1:05–4:05

autumn, 59; winter, 62; spring, 17

216. Advanced Machine Design.—Design of complete machines. Students may elect machine tools, cranes, steam or gas engines, or special

problems. (One lecture and nine hours drafting per week.) Intended for fifth-year students who have completed courses 114, 132, and 133.

4 units, autumn quarter (Marx, Cutter, Green)
Lec. F 10; Dft. 1:05–4:05 by arrangement
autumn, 6

Experimental Engineering

[Note.—Laboratory sections in experimental engineering will be arranged in groups of three students. In so far as the laboratory schedule permits students will be allowed, with due regard to priority of application, to arrange their own sections and laboratory periods. Enrollment, with the instructor concerned, on registration day or the first day of university instruction, is essential in order both that the laboratory schedule may be prepared and a lecture period selected to meet the requirement of the class as a whole. Enrollment later than the first week will not be permitted under any circumstances.]

121. Valuation of Fuels and Oils for Engineering Purposes.—Includes determinations of the proximate analysis of coal; the calorific value of coals, fuel oils, and gas; the moisture contents of fuel oils; the density, viscosity, flash, burning, and chill points of oils, and the coefficient of friction of lubricated bearings. (One lecture, three hours in the laboratory, and ten hours on reports per experiment.) Open to students who have completed courses Chemistry 1 and *b*, Physics 10–13. Required of students in Mechanical Engineering. (Elective for students who take 7 units of courses E. E. 126, 207.)

3 units, autumn quarter (Stebbins)
Lec. TTh 9; Lab. 1:05–4:05 by arrangement
autumn, 37

122. Calibration and Use of Engineering Instruments.—Including thermometers, gas and steam meters, planimeters, steam engine indicators, absorption brakes, transmission dynamometers, and steam calorimeters. (One lecture, three hours in the laboratory, and ten hours on reports per experiment.) Open to students who have completed Chemistry 1 and *b*, Applied Mathematics *2b*, and Physics 11–13. Required of students in Mechanical Engineering.

3 units, winter quarter (Stebbins)
Lec. TTh 9; Lab. 1:05–4:05 by arrangement
winter, 33

123. Heat Engines, Theory and Laboratory.—A brief course covering the fundamentals of theory and the general methods of testing steam boilers, engines and turbines, gas engines and air compressors. (Two lectures per week and seven experiments, each requiring three hours in the laboratory and about twelve hours on reports.)

Open to all engineering majors (except Mechanical Engineers) who have completed Physics 11, 12, 13, and Applied Mathematics *3a, b*.

4 units, winter quarter (Eckart) [Not given in 1922–23]
winter, 31

124. Testing of Engines, Boilers, and Compressors.—Includes valve setting, flue gas analysis, economy tests of steam engines, and steam turbines, gas engines, boilers, and air compressors. (One lecture, three hours in the laboratory, and ten hours on reports per experiment.) Open only to students who have completed Mechanical Engineering 132, 134; required of students in Mechanical Engineering.

3 units, winter and spring quarters (Eckart)
Lec. TTh 11; Lab. 1:05 4:05 by arrangement
winter, 31; spring, 31

225. Testing of Hydraulic Machinery.—Includes tests of centrifugal, rotary, jet, and steam pumps, pulsometers, hydraulic rams, water wheels and hydraulic turbines. (One lecture, three hours in the laboratory, and ten hours on reports per experiment.) Open to students who have completed Engineering 106 and Mechanical Engineering 123 or 124, and 132.

3 units, autumn quarter (Eckart) Lec. TTh 8; Lab. 1:05–4:05 by arrangement
autumn, 7

226. Testing of Heat Exchangers and Power Plant Auxiliaries.—Includes tests of feed water heaters, economizers, condensers, injectors, blowers, turbo-compressors, and refrigerating machinery. (One lecture, one conference, three hours in the laboratory, and ten hours on reports per week.) Open to students who have completed courses 124 and 225.

3 units, winter quarter (Eckart) Lec. TTh 11; Lab. 1:05–4:05 by arrangement
winter, 8

227. Testing of a Complete Power Plant.—A comprehensive test which reviews and coördinates the work of courses M. E. 121, 122, 124, 225, and 226. The work includes the planning and arranging of all details, the calibration of all instruments, preliminary runs for valve and other adjustments in accordance with the code of the A. S. M. E. A final report to be made by the section as a whole, copies being prepared for each student and one for the laboratory files. Open only to students who have completed M. E. 121, 122, 124, 225, and 226; will not be given unless at least six students register.

2 units, spring quarter (Eckart) By arrangement
spring, 5

230. Experimental Investigation of Mechanical Engineering Problems.—Open to all students who have completed courses 121, 122, and 124 and whose work has indicated their ability to carry on successfully advanced work of this nature.

3 to 6 units, autumn, *winter, and *spring quarters (Eckart, Stebbins) By arrangement

Power Plant Engineering

131. Engineering Reports and Specifications.—Practice writing, with occasional lectures. Required of fourth-year students in Mechanical Engineering.

3 units, autumn and *spring quarters (Lesley) [Not given in 1923–24]
autumn, 20

132. Heat Engines.—Mechanical theory of heat and its applications. Fourth-year students in Mechanical Engineering. Prerequisites: Applied Mathematics *2a, 2b,* and Physics 11, 12, and 13.

4 units, autumn quarter (Cross) Lec. MWF 10; office work as arranged
autumn, 89

133. Heat Engines.—Continuation and application of course 132. (Three lectures and three hours office work per week.) Required of fourth-year students in Mechanical Engineering.

4 units, winter quarter (Cross) Lec. MWF 10; office work as arranged
winter, 79

234. Applied Thermodynamics.—Continuation of courses 132, 133. Irreversible operations, flow of gases and vapors, design of turbine nozzles. Application of thermodynamic theory to advanced and special problems. Prerequisite: courses 132 and 133. Required of fifth-year stu-

dents in Mechanical Engineering. (Three lectures and three hours office work per week.)

4 units, spring quarter (Cross) Lec. MWF 10; office work as arranged
spring, 18

235. Central Power Stations.—Study of the principal problems presented by the design and operation of modern central power stations driven by heat prime movers. (Two lectures and three hours office work per week.)

3 units, autumn quarter (Durand) Lec. TTh 9; office work as arranged
autumn, 20

236. Pumping Machinery.—Discussion of the principal problems arising in the design and operation of pumping machinery of various types, direct, centrifugal, rotary, propeller; and for various purposes, general service, boiler feed, fire service, mine drainage, irrigation, municipal supply, oil line service, etc. (Two lectures and three hours office work per week.) Prerequisites: course 132, and Engineering 106.

3 units, winter quarter (Durand) Lec. TTh 9; office work as arranged
winter, 43

237. Hydraulic Machinery and Power Stations.—Elements of hydraulic machinery with special reference to prime movers. Elements of the design of hydraulic power stations with special reference to modern hydroelectric practice; general control of water in tunnels and penstocks, surge chamber, control of surges and shocks, valves and regulating devices, penstocks and their installation, selection of units, characteristics of impulse and reaction types, speed regulation, installation tests, and special problems. Prerequisite: Engineering 106. (Four lectures and three hours office work per week.)

5 units, spring quarter (Durand) Lec. MTWTh 9; office work as arranged

Aeronautics

140. Theory of Flight.—Discussion of elementary principles and application to the chief problems arising in the theoretical discussion of the flight of air-craft heavier than air. (Two lectures, with collateral problems.)

2 units, winter quarter (Durand)
winter, 30

141. Aerodynamic Laboratory.—Experimental investigation of airplane propellers and other aerodynamic problems.

3 units, autumn, *winter, and *spring quarters (Lesley) By arrangement
autumn, 1; winter, 1; spring, 2

Special Research

251. Thesis.—Investigation of some engineering problem. Required of candidates for degree of Engineer.

2 to 15 units, autumn, *winter, and *spring quarters
(Department Staff) By arrangement
autumn, 1, 3; winter, 1, 1

Fees.—Courses 1, 3, 5, 6, and 107, $10 each; course 227, $3; courses 121, 122, 123, 124, 225, and 226, $5 each; course 230, $1.50 per credit hour; courses 235, 236, 50c each.

ENGLISH

Raymond Macdonald Alden, William Herbert Carruth, John S. P. Tatlock, Professors.
Tom Peete Cross (University of Chicago), Acting Professor (Summer Quarter).
Tucker Brooke (Yale University), Acting Professor (Summer Quarter).
William Dinsmore Briggs, †Henry David Gray, Samuel Swayze Seward, Jr., Mary Yost (Dean of Women), Associate Professors.
Howard Judson Hall, Arthur Garfield Kennedy, Edith Ronald Mirrielees, Frances Theresa Russell, Assistant Professors.
Margery Bailey, Merrill Kelley Bennett, George Pope Shannon, Lawrence Bergmann Wallis, Instructors.

Requirements for the Degree of Bachelor of Arts

a. The courses ordinarily prescribed in the major subject include Chaucer, Shakespeare (Courses 25 and 159), the advanced courses (181, 182, 183, 184) in the History of English Literature (four quarters), and an advanced course in a single author (as Milton, Wordsworth, or Spenser), besides such preliminary courses in composition, vocal expression, or literature as may be advised in individual cases. In the advanced courses in English Literature one of two substitutions may be made: (*a*) for course 182, the course in Elizabethan Drama (170); or (*b*) for course 183, the course in Modern English Fiction (168). (For the requirements in the case of students making English their major subject with special reference to public speaking or journalism, see below under the Divisions of Public Speaking and Journalism.)

b. It is required also that each student pursue work in one foreign language and literature sufficiently for the accomplishment of two ends, (1) a practical reading knowledge of the language chosen, and (2) some acquaintance with its most important literature. This requirement is not primarily a matter of formal credit-hours, but will ordinarily be found to demand a minimum of 24 units of college work in the chosen language, aside from elementary courses (two years in the high school or one in the University). Students should be sure that their language studies are so planned as to accomplish the ends desired. Introductory courses in Latin and Greek, if pursued in the University, will be counted as college work. Those who make Latin or Greek their principal language are advised, in general, to include two years of work in a modern language among their elective studies; and those who have chosen a modern language are encouraged to include among their elections two years of work in Latin or Greek.

c. A course in English History is also prescribed for those who have not had a separate course in the subject in the high school.

The Teacher's Recommendation.—The High Shool Teacher's Certificate is granted by the State to students who have fulfilled the State requirements as set forth in the *Information* Bulletin, involving for applicants without experience one full year of graduate study. Recom-

† Absent on leave 1922–23.

mendation by the department is granted by vote to students whose work has been of high character. It should be distinctly understood that a mere passing grade does not entitle a candidate to the endorsement of the department. For major students of the department the courses ordinarily prescribed, in addition to those required for the degree of A. B., are the History of the English Language (198), Versification (199), and Teachers' English (200). For the courses required of students of other departments who seek a recommendation in English, as a major or minor subject, see the *Announcement of the School of Education.*

Advanced Degrees

The candidate for the Master's degree in English must have: (1) The equivalent of the requirements for the A.B. degree in English; (2) an elementary knowledge of Old English; and (3) a reading knowledge of two foreign languages (preferably one ancient and one modern). The work for the degree must occupy at least one full year of graduate study in residence, the greater part in English, the remainder in related fields. The courses in English will be divided between the earlier and later periods. The candidate must present a thesis prepared under the direction of a member of the department and demonstrating the candidate's power of concentrated, independent study; this thesis may be accepted in lieu of not more than nine units of the work in the course. In addition, he will be given a general examination on English literature.

For the conditions of acquiring the Doctor's degree, see the *Graduate Study* Bulletin.

Preliminary and General Courses

[In general, courses 9–15 are open to first-year students; courses 22–29 are open to second-year students.]

A. Elementary Composition.—A one-quarter course required of all first-year undergraduates who do not pass the matriculation test in English.

1 unit, autumn, *winter, *spring, and *summer quarters (Bailey, Hand, Lima, Seay, Sheldon, Specking, Walton) TTh S 8; MWF 8, 9, 1:05
autumn, 23, 22, 27, 22; winter, 16, 22, 21, 19; spring, 13, 23, 17; summer, 15

[For each student in course A, except in case of those who meet the requirement within a short time, a fee of $10 is charged.]

2. English Composition.

a. Narration and Description.

b. Exposition.

3 units, any two quarters (Seward, Bailey, Bennett, Hall, Hill, Mirrielees, Seay, Shannon, Wallis, Yost) TTh S 8; MWF 8, 9, 10, 11, 1:05
autumn, 26, 21, 29, 21, 25, 27, 24, 26, 24, 27, 25, 25, 23; winter, 30, 25, 24, 22, 38, 27, 26, 20, 25, 29, 50; spring, 13, 23, 27, 46, 23, 46, 30, 21, 23, 47, 17, 23; summer, 28, 29

9. American Literature.—*a.* To the Civil War (first quarter). *b.* From the Civil War to the present (second quarter). Either quarter may be taken separately. Not open, except by special permission, to students having entrance credit in American literature. Open to seniors only with reduced credit.

5 units, autumn quarter; 3 units, winter quarter (Hall) (autumn) MTWThF 11; (winter) MWF 11
autumn, 43; winter, 51

10. English Masterpieces.—A study of representative works of important English writers. May be taken two quarters, to the extent of eight units of credit. (*a*) Writers before 1700 (3 units); (*b*) Writers of the 18th and 19th centuries (5 units). Open to other than first-year students only by permission.

3 units, autumn, *winter, and *spring quarters (Mirrielees, Bailey, Wallis) (autumn) MWF 9; (winter) MWF 9, 11; (spring) MWF 8, 11
autumn, 48; winter, 40, 30; spring, 58, 48

11. Introduction to Poetry.—A study of the nature, methods, and forms of poetry, with exercises in analysis and interpretation. Open to students of all departments; to seniors only with reduced credit.

4 units, autumn quarter (Alden) MTThF 9
autumn, 43

12. Introduction to Essay Reading.—Essays, chiefly modern, designed to form a stimulating approach to this type of literature.

3 units, summer quarter (Russell) MWF 8
summer, 25

14. Tennyson.—A study of selected portions of Tennyson's poems, illustrating the growth of his literary art. A general course, designed for first- and second-year students, and open to third- and fourth-year students by permission only.

4 units, autumn quarter (Hall) MTWF 9
autumn, 6

21. Victorian Novelists.—A study of selected Victorian novelists.

4 units, winter quarter (Seward) MWThF 10
winter, 23

22. Victorian Prose.—A study of selected Victorian prose writers.

3 units, one quarter (Seward) [Not given in 1922–23]

23. Victorian Poetry.—A study of selected Victorian poets.

3 units, autumn and summer quarters (Seward) (autumn) MWF 10 (summer) TWThF 10
autumn, 17; summer, 5

24. English Bible.—Representative portions of the Old Testament studied as literature.

3 units, autumn quarter (Gray) [Not given in 1922–23]

25. Shakespeare.—An introduction to Shakespeare, with rapid reading of a considerable number of the plays in chronological sequence. Open to all second-year students; continued, for third- and fourth-year students, in course 159.

4 units, spring quarter (Bassett) MTWF 9
spring, 50

27. Browning.—An introductory course, open to all students.

3 units, spring quarter (Russell) MWF 10
spring, 41

29. Outline History of English Literature.—A condensed chronological survey, designed primarily for second-year students who intend to make English their major subject.

5 units, winter and summer quarters (Bailey, Tatlock) (winter) MTWThF 11 (summer) MTWThF 9
winter, 16; summer, 28

Advanced and Special Courses

[Unless otherwise specified, the following courses are open to third-year and fourth-year students of all departments.]

130. Advanced Composition.—A course intermediate between the elementary and the more specialized branches of written expression. Practice in various forms, with formulated criticism and illustrative reading.
4 units, spring quarter (Russell) MTWF 9
spring, 17

131. Exposition.—An advanced course, intended primarily for students in scientific and professional lines. Special attention will be given to students preparing theses or other papers. Prerequisite: course 2 or equivalent.
4 units, spring quarter (Hall) MWF 11
spring, 3

132. Argumentation.—[See under Division of Public Speaking.]

134. Dramatic Composition.—The principles of dramatic writing developed in connection with the student's own work. Enrollment limited: students must submit specimens of their work in advance.
3 units, autumn and winter quarters (Gray) [Not given in 1922–23]

135. Verse Writing and Prosody.—Practical exercises in lyric composition, with illustrative study of modern poets. Open by permission to second-year students who have had six units in English composition.
3 units, spring quarter (Carruth) TTh 10
spring, 20

136. Short Story Writing.—A study of the structure of the short story, with practice in story writing. Open by permission to students who have completed two quarters of English 2.
3 units, autumn, winter, and spring quarters (Mirrielees) MTW 9
autumn, 5; winter, 28; spring, 13

137. Essay Writing.—Preparation of magazine articles, criticisms, and papers of both informal and analytical character. Prerequisite: course 2.
3 units, summer quarter (Russell) MWF 9
summer, 22

139. Free Reading.—Eight hours of reading weekly, with informal class reports and discussion. The course furnishes an opportunity for students to read books with which they should be familiar, but which are not assigned in connection with their other courses. Open to a limited number of upper-class students from other departments; not to English major students. May not be taken for more than two quarters.
2 units, any quarter (Carruth, Bassett, Brown, Cady, Cross, Elmore, Foster, Gardner, Hulme, Kennedy, Martin, Mirrielees, Robinson, Russell, Seward, Wallis, Walton) MT 4, 5
autumn, 7, 4, 6, 7, 9, 6, 7, 7, 5, 5, 7; winter, 6, 7, 7, 8, 5, 8, 7, 6; spring, 6, 9, 8, 6, 8, 7, 7, 7, 38

154. The Short Story.—A study of the short story in English, with especial attention to its development during the nineteenth century.
5 units, autumn quarter (Mirrielees) MTWThF 8
autumn, 34

156. The History of the English Language.
4 units, spring quarter (Kennedy) MTWThF 10
spring, 25

158. Chaucer.—An elementary course, including an outline of Middle-English grammar for the beginner. Open to third-year students who have a reading knowledge of one foreign language.
3 units, winter quarter (Kennedy) MWF 10
winter, 44

159. Shakespeare.—A continuation of course 25, devoted to the more intensive study of a few plays. Designed primarily for English major students in their third year; open to others on recommendation from course 25.

3 units, autumn quarter (ALDEN) MWF 9
4 units, summer quarter (BROOKE) TWThF 10
autumn, 34; summer, 25

160. Spenser.

3 units, one quarter (BRIGGS) [Not given in 1922–23]

161. Milton.

3 units, autumn quarter (BRIGGS) MWF 10
autumn, 34

162. Wordsworth.

3 units, spring quarter (HALL) MWF 10
spring, 24

163. Browning.—Either "The Ring and the Book" or a selection from the dramas and longer poems (the shorter poems being studied in course 27).

3 units, one quarter (RUSSELL) [Not given in 1922–23]

165. Introduction to Comparative Literature.—An exposition of the comparative method in literary study, with a survey of the distribution of types in world literature. Open to third-year and fourth-year students who have had not less than fifteen units (high school or college) in English literature.

3 units, winter quarter (CARRUTH) TWF 10
winter, 9

166. National Epics.—Theory and history of epic poetry, with reading in translation of the Mahabharata, the Beowulf, and the Kalewala. This course is intended to coöperate with similar courses in the departments of Classical Literature and modern literatures (winter quarter). Open also to graduates.

3 units, autumn quarter (CARRUTH) MWF 11
autumn, 3

167. The History of Prose Fiction.—Including the beginnings of English fiction to DeFoe.

3 units, one quarter (CARRUTH) [Not given in 1922–23]

168. English Fiction.—A course in the history of English fiction from DeFoe through the major novelists of the nineteenth century.

5 units, one quarter (BRIGGS) [Not given in 1922–23]

169. The Modern Novel.—Lectures on European fiction from 1856 to the present time, with the reading of representative novels and reports upon them. Open to third-year and fourth-year students of all departments.

3 units, two quarters (GRAY) [Not given in 1922–23]

170. The English Drama to 1642.—The beginnings and development of the drama.

4 units, one quarter (BRIGGS) [Not given in 1922–23]

171. Modern Drama.—A study of Ibsen and of contemporary dramatists. Open to third-year and fourth-year students of all departments.

5 units, one quarter (GRAY) [Not given in 1922–23]

173. Contemporary Poetry.—A survey of English and American poetry since 1890, with especial attention to the poetic revival of the present time.

3 units, one quarter (GRAY) [Not given in 1922–23]

174. The English Essay.—A study of the essay as a type, from Bacon to the twentieth century.
3 units, one quarter (Russell) [Not given in 1922–23]

175. Modern Essays.—A continuation of course 174, extending from the middle of the nineteenth century to the present.
3 units, one quarter (Russell) [Not given in 1922–23]

176. Celtic Romance and European Literature.
4 units, spring quarter (Cross)
spring, 9

181. Medieval Literature, with special reference to Middle English.—The course will serve as a general introduction to medieval European literature, which is studied by types; romances, histories, visions, lyrics, fabliaux, etc. This course is continued in No. 209.
4 units, autumn quarter (Tatlock) MTWF 11
autumn, 49

182. English Literature from 1557 to 1700, exclusive of the Drama.—Primarily for fourth-year students of the English Department.
4 units, spring quarter (Briggs) MWThF 9
spring, 15

183. English Literature from 1700 to 1780.—Primarily for third-year students of the English Department.
4 units, winter quarter (Bailey) MTWF 11
winter, 44

184. English Literature from 1780 to 1832.—A continuation of course 183.
4 units, spring quarter (Alden) MTThF 11
spring, 33

185. English Literature and Political Thought.
4 units, winter quarter (Briggs) MTWF 9
winter, 4

186. Criticism (Undergraduate Seminary).—A course in the practical analysis and valuation of recent literature; book reviews and discussions. Limited to eight seniors, admitted from any department on recommendation.
3 units, autumn quarter (Alden) MTh 2:05–3:40
autumn, 6

189. American Colonial Literature.—A research course.
4 units, winter quarter (Hall)
winter, 1

[The following courses (190–199) are designed for both graduate and advanced undergraduate students, and are accepted for graduate credit in the program of candidates for advanced degrees.]

190. American Poetry.—A study of the greater American poets with especial reference to their relation to English and continental literature.
4 units, spring quarter (Carruth) TWThF 11
spring, 11

191. Essay Writing (advanced course).—An opportunity for the crystallizing and formulating of opinions on such subjects as education, government, recreation, art, and personal relationships. Open only on consultation with the instructor.
3 units, spring quarter (Russell) MWF 2
spring, 5

192. Old English.—Elements of Old English grammar, with reading exercises.
4 units, winter and summer quarters (KENNEDY) MWThF 9
winter, 7; summer, 7

193. Beowulf.
4 units, spring quarter (KENNEDY) MWThF 9
spring, 4

194. Middle English Readings.
3 units, autumn quarter (KENNEDY) MWF 9
autumn, 6

195. The Bible in Early English.—Lectures, with readings in translation.
3 units, one quarter (KENNEDY) [Not given in 1922–23]

197. Ideal Commonwealths.—A study of the Utopian idea and related social and political conceptions, as expressed in literature.
3 units, one quarter (RUSSELL) [Not given in 1922–23]

198. History of the English Language.
4 units, spring quarter (KENNEDY) MTWThF 10

199. Versification.—An introduction to the theory of rhythm and meter, the history of English prosody, and the problems of reading and teaching verse.
3 units, summer quarter (ALDEN) TWTh 9
summer, 18

TEACHERS' COURSE

200. Teachers' Course in English.—A study of principles and methods with special reference to secondary schools.
a. Composition (autumn quarter). *b.* Literature (winter quarter). *c.* Vocal expression (spring quarter). 200*a* and 200*b* are also given as a continuous course of 5 units in the summer quarter.
3 units, autumn and winter quarters (SEWARD) MTh 2:30–4
2 units, spring quarter (BASSETT) Th 2–4
5 units, summer quarter (SEWARD) MTWThF 11
autumn, 20; winter, 22; spring, 6; summer, 31

GRADUATE COURSES

201. Introduction to English Philology and Bibliography.
3 units, autumn and summer quarters (KENNEDY) MWF 10
autumn, 7; summer, 6

202. Satire.—A study of the satiric element in literature, exemplified by some particular phase selected for specialization.
4 units, summer quarter (RUSSELL) MW 2–4
summer, 7

203. Tragedy.—A comparative study of the theory and practice of tragedy in various literatures.
4 units, two quarters (ALDEN) [Not given in 1922–23]

204. Comedy.—An inquiry into the nature of the comic and into its literary uses, as exemplified especially in the drama.
4 units, one quarter (SEWARD) [Not given in 1922–23]

206. Critical Theories.—A study of the principal critical writings of the age of Coleridge, with special reference to the theory of poetry.
4 units, summer quarter (ALDEN) TWThF 11
summer, 7

207. Tennyson.—The Idylls of the King compared with their sources.
3 units, autumn quarter (CARRUTH) TThF 3
autumn, 5

208. The Tristram Theme in General Literature.—A study of the sources and migration of epic themes.
3 units, winter quarter (CARRUTH) TF 11
winter, 3

209. Medieval Literature.—A continuation of course 181, but may be taken by students who have not had the latter. Especial attention is paid to Dante and Chaucer.
3 units, one quarter (TATLOCK) [Not given in 1922–23]

210. Chaucer (advanced course).—The Canterbury Tales, or the Troilus, will be studied, with attention to the structure and history of the work and its literary significance. This course may be taken for two or more quarters.
4 units, winter and summer quarters (TATLOCK) By arrangement
winter, 6; summer, 9

211. Shakespeare.—An introduction to the bibliography of the subject, the history of the text, and methods of critical study.
4 units, autumn quarter (ALDEN) MWF 11
autumn, 7

212. Shakespeare.—A critical study of one or two plays.
4 units, one quarter (GRAY) [Not given in 1922–23]

215. Elizabethan Drama Seminary (Marlowe).
4 units, autumn quarter (BRIGGS) By arrangement
autumn, 6

216. The Life and Thought of the 16th Century.
4 units, winter and spring quarters (BRIGGS) By arrangement
winter, 6; spring, 4

217. Journal Club.—Reports on current literature.
2 units, winter and spring quarters (CARRUTH, KENNEDY) (winter) W 11; (spring) W 2
winter, 1

218a. Early English Seminary.—Legendary history of Britain.
3 units, one quarter (TATLOCK) [Not given in 1922–23]

218b. Early English Seminary.—The Siege of Troy in English literature.
3 units, one quarter (TATLOCK) [Not given in 1922–23]

220. Elizabethan Romanticism.
4 units, summer quarter (BROOKE) TTh 1–3
summer, 11

221. American Colonial Literature.—A research course. Prerequisites: American history and English literature of the 18th century.
4 units, winter quarter (HALL) By arrangement

225. Foundations of Romanticism.
4 units, spring quarter (CROSS)
spring, 8

DIVISION OF PUBLIC SPEAKING

LEE EMERSON BASSETT, Professor.
JAMES GORDON EMERSON, Associate Professor.
ELISABETH LEE BUCKINGHAM, Assistant Professor.
†GORDON ARTHUR DAVIS, Instructor.
RICHARD C. BENTINCK, Acting Instructor.

† Absent on leave, 1922–23.

Students who give evidence of special aptitude for the subject may elect English as their major department in special preparation for professional work in the practice or teaching of public speaking. Such students will register with the members of this Division as their advisers; they will meet the same requirements as other major students in English (see page 69 above), except that they may substitute work in public speaking, to the amount of 8 units, for advanced courses in literature. Those who wish special training for public speaking and platform work will ordinarily be expected to complete courses 4, 5, 7, 8, 19*a*, 132, 149, and 152. For requirements for the teaching major in public speaking see *Announcement of the School of Education.*

[NOTE.—*All courses in public speaking are open to but a limited number of students.* Application should be made on registration day, and the instructor reserves the right to refuse to enroll students who do not appear at the first meeting of the class. In general, courses 4 to 6 are open to first-year students; courses 7 to 21*b* to second-year students.]

4. Vocal Expression.—A study of the principles of oral expression and the vocal interpretation of masterpieces in prose and poetry, with supplementary work in voice development. Class recitations and personal conferences.

3 units, autumn, *winter, and *spring quarters (BASSETT, BUCKINGHAM, SEAY) (autumn) MWF 9, 11; (winter, spring) MWF 9
autumn, 28, 27; winter, 46; spring, 23, 17; summer, 22, 10, 32

5. Reading Aloud.—The oral rendering of various forms of literature. Particular attention will be given to rhythm, time, melody, quality, and other musical elements of verse. Assignments for general class practice and for individual study and rendition. Prerequisite: course 4 or its equivalent.

3 units, spring quarter (BUCKINGHAM) spring, MWF 8
spring, 20

6. Practical Phonetics.—A course in the enunciation and pronunciation of the English language. Designed especially for foreign students.

1 unit, winter and spring quarters (BASSETT) T 1:05
winter, 10; spring, 8

7. Extemporaneous Speaking.—Practice in extemporaneous speaking on subjects of current interest with attention to the preparation of speech outlines. Not open to first-year students. Should preferably be preceded by course 4.

3 units, autumn, *winter, and *spring quarters (EMERSON, BUCKINGHAM, BENNETT) (autumn, winter) MWF 9, 11; (spring) MWF 9, 11
autumn, 24, 18; winter, 18, 16, 16; spring, 15, 20; summer, 25

8. Public Speaking.—Practice in the preparation and delivery of various types of speeches with particular reference to elements of attention. Prerequisite: course 7.

3 units, *winter quarter (BASSETT, EMERSON) MWF 10
autumn, 15; winter, 11; spring, 16; summer, 20

19a. Vocal Interpretation.—The oral interpretation of literature, both prose and poetry. Prerequisite: courses 4 and 5.

3 units, winter quarter (BASSETT) MWF 11

19b. Vocal Interpretation: Dramatic Literature.—The study of short plays of literary and dramatic merit for presentation before the class. Parts will be assigned. Attention will be given to characterization and action.

3 units, spring quarter (BUCKINGHAM) T 2:05–4:05; Th 3:05–4:05
spring, 20

120. Practical Debate.—Under supervision of the department those students who work on intercollegiate debate questions may receive credit upon satisfactory completion of the work.
1 or 2 units, autumn, *winter, and *spring quarters (EMERSON) By arrangement
autumn, 6; winter, 6; spring, 6

121. Theatrical Workshop.—A theatrical laboratory in the production of plays for public presentation. Particular attention will be given to the construction and designing of stage scenery, and to costuming, lighting, acting, and stage direction.
3 units, autumn, *winter, and *spring quarters (BENTINCK) T 1:05; Th 1:05–3:05
autumn, 28; winter, 45, 42; spring, 39

122. Reading and Staging Plays.—A course in play-reading and play-giving with special reference to high school and amateur dramatics.
3 units, summer quarter (BUCKINGHAM) MWF 10
summer, 26

132. Argumentation.—The theory of argumentation, with practice in the preparation of briefs and in the writing of arguments, together with a critical analysis of argumentative masterpieces. Open to all students who have made a satisfactory grade in English 2.
3 units, autumn quarter (BENNETT) MWF 9
autumn, 7

133. Public Speaking (advanced).—A study of masterpieces of oratory and the preparation of original speeches, with special attention to the style of spoken discourse. Prerequisites: courses 7, 8.
3 units, spring quarter (BASSETT) MWF 10

149. Voice Training.—Lectures on the voice, with class exercises.
1 unit, autumn quarter (BASSETT) T 1:05
autumn, 26

151. Public Reading.—A course in the preparation of poems, stories, and scenes from novels and plays for public presentation. Prerequisites: courses 4, 5, and 19*a*.
2 units, winter and spring quarters (BASSETT) Th 2:05–4:05
winter, 13; spring, 9

152. Oral Debate.—Practice in the preparation and delivery of oral arguments, chiefly on current public questions. Prerequisite: course 132.
2 units, winter and spring quarters (EMERSON) W 2:05–4:05
winter, 15; spring, 10

200c. Teachers' Course in Oral Expression.
2 units, winter quarter (BASSETT) T 2:05–4:05

200d. Teachers' Course in Oral Reading.—A study of the principles of expressive speech and training in reading aloud, with assignments adapted to the needs of individual members of the class. The course is given in connection with the Teachers' Course in English Literature and Composition (see p. 74).
2 units, summer quarter (BUCKINGHAM) T 2:05–4:05
summer, 10

DIVISION OF JOURNALISM

EVERETT WALLACE SMITH, Associate Professor.
PAUL HIBBERT CLYDE, Instructor.
JOHN JAY CUDDY, Lecturer in Advertising.

The Journalism curriculum is based on the conviction that the proper college preparation for journalism is a broad course with a preponderance of English, history, economics, and political science. The Lower Division work provides an excellent foundation for such a course, the requirements bringing the student into contact with a wide variety of subjects, and with the electives enabling him to begin to develop his studies in English, history, economics, and political science, which are fundamental to journalism.

The special journalism subjects, with the slight exceptions noted, are offered only to upper division students, and the greater part of the time of such students will be devoted to non-technical subjects, students of journalism being required to specialize particularly in the work of one of the departments of English, history, economics, or political science. To this end, they will make one of these their major department, will be subject to the direction of the major department in conjunction with the instructors in the Division of Journalism, and will meet the usual requirements of the particular department excepting where otherwise stated. They will be classified and their diplomas marked, if so desired, "English (Economics, History, Political Science) preparatory to Journalism."

Intending journalists are encouraged to engage in college journalism and thus to obtain practical experience during their course. When done systematically and under the supervision of the Division of Journalism, such work will be given credit towards graduation.

First- and second-year students who are members of the staff of the *Daily Palo Alto* or reporters on other newspapers will be admitted to the class in Practical Reporting for one unit of credit per quarter, provided they attend the special lectures given in connection with that course which deals with principles and practice in newspaper work. First- and second-year students may also be admitted to the course in Editorial Management, provided they meet the requirements.

In some of the journalism courses the written work must be done on the typewriter. On this account, and because ability to use the typewriter is necessary for practically all newspaper work, prospective journalism students are advised to gain this ability as early as possible.

To students making English their major subject in preparation for journalism the department offers a variety of courses in advanced and specialized composition and in English language and literature. Such students will meet the following requirements:

(1) A minimum of 30 units of Journalism, including News Writing (10 units); Copy Reading (5 units); Editorial Writing or Feature Article Writing (5 units); American Journalism (3 units).

(2) A minimum of 30 units of English department courses. At least 25 of these 30 units shall be selected from the following groups of courses, with a minimum of 10 units from group II, and a minimum of 6 units from group III:

GROUP I

9. American Literature	8 units	25. Shakespeare	4 units
22–23. Victorian Literature	6 units	29. Outline History	5 units
24. Bible	3 units		
			26 units

GROUP II

158. Chaucer ..... 3 units
159. Shakespeare ..... 3 units
160. Spenser ..... 3 units
161. Milton ..... 3 units
162. Wordsworth ..... 3 units
165. Comparative Literature..... 3 units
168. English Fiction..... 5 units
174. English Essay..... 3 units
181. Medieval Literature..... 4 units
182. Literature, 1557–1700..... 4 units
183. Literature, 1700–1780..... 4 units
184. Literature, 1780–1832..... 4 units
198. English Language..... 4 units

46 units

GROUP III

154. Short Story..... 5 units
169. Modern Novel..... 6 units
171. Modern Drama..... 5 units
175. Essayists ..... 3 units
186. Criticism ..... 3 units

22 units

(3) A knowledge of a modern foreign language sufficient to insure the rapid translation of current literature in that language.

(4) In history, a minimum of 20 units, including, besides Lower Division requirements in American history, either England since 1485 or Europe since 1815.

(5) In economics and political science, a minimum of 20 units, with course 2 in Political Science (State and Local Government) strongly recommended.

(6) In addition, such courses as those in advertising, logic, argumentation, general psychology, and advanced composition, according to the particular interests and needs of the individual students.

Courses in Journalism

117a. News Writing.—Study of the structure of the news story and of news value, with practice in writing. Sources of news and methods of news gathering. Newspaper organization and news-gathering organizations. All writing in the course must be done on a typewriter.

5 units, autumn and winter quarters (Smith) MTWThF 8
autumn, 11, 18; winter, 22; spring, 22

117b. Copy Reading.—A continuation of course 117*a*. Writing of more difficult news stories. Copy reading, headline writing, and proof-reading, with some attention to the mechanical operations of newspaper production.

5 units, spring quarter (Smith) MTWThF 8

140. Editorial Writing.—Study of the function of the editorial, with practice in writing.

5 units, autumn quarter (Smith) MTWThF 11
autumn, 14

141. The Feature Article.—Study of the feature article for newspapers and magazines, with practice in writing.

5 units, winter quarter (Smith) MTWThF 11
winter, 7; spring, 1

143. American Journalism.—A survey of the development of American newspapers, and a study of the work and influence of outstanding journalists.

3 units, spring quarter (Smith) MWF 11
spring, 19

144. Practical Reporting.—Practical work in news gathering and writing for the *Daily Palo Alto* and other newspapers, with conferences.

Primarily for journalism major students and those who intend to become such; others may be admitted by special permission.
1 or 2 units, autumn, winter, and spring quarters (SMITH, CLYDE) By arrangement
autumn, 16; winter, 19; spring, 28

145. Editorial Management.—Practical advanced work on the editorial staffs of campus publications, with conferences.
2 or 3 units, autumn, winter, and spring quarters (CLYDE) By arrangement
autumn, 9; winter, 11; spring, 10

146. Advertising.—A course in the principles and practice of advertising primarily for students who are training for journalism. Covers the subject from the standpoint of the newspaper office. Reviews methods for building volume in local display, classified, and foreign advertising; the preparation and selling of advertising plans for local advertising; practices between newspapers and advertisers and advertising agencies, and merchandising research and other services to advertisers and advertising agencies. Intended primarily for fourth-year students.
3 units, winter quarter (CLYDE, CUDDY) MWF 10
winter, 61

FOOD RESEARCH INSTITUTE

CARL LUCAS ALSBERG, JOSEPH STANCLIFFE DAVIS, ALONZO ENGLEBERT TAYLOR, Directors.

The Food Research Institute is organized under a grant from the Carnegie Corporation of New York for the purpose of studying the production, distribution, and consumption of food. Most of its investigations are conducted by the directors and the staff of the Institute.

Food Research Fellows will participate in these investigations, as arranged with the directors, while taking supplementary courses in other departments of the University. In addition, the directors will guide a limited number of other properly qualified students in research upon selected food problems. Such work will count under the usual terms toward the degrees of A.M. and Ph.D.

Research students in the Institute will ordinarily elect, in addition to course 201, the seminar in food research.

RESEARCH COURSES

201. Food Research Problems.—Research upon subjects lying within the general field of food production, distribution, and consumption.
autumn, winter, and spring quarters (ALSBERG, DAVIS, TAYLOR) By arrangement
autumn, 8; winter, 6; spring, 6; summer, 2

202. Food Research Seminar.—Weekly conferences in discussion of topics pertinent to the work of the Food Research Institute.
1 unit, autumn, winter, and spring quarters (ALSBERG, DAVIS, TAYLOR)
autumn, 16; winter, 12; spring, 9

GEOLOGY

Bailey Willis, Professor Emeritus.
Eliot Blackwelder, Austin Flint Rogers, James Perrin Smith, Cyrus Fisher Tolman, Professors.
Russell Stafford Knappen, Acting Assistant Professor (Summer Quarter).
Ralph Daniel Reed, Teaching Fellow.

The Department of Geology offers training in preparation for the profession of geologist and also in part for that of mining engineer. At present the fields of work generally open to graduates of the Department are those of mining geologist, petroleum geologist, state and federal geological surveys, university teaching, and institutional research.

It is important that students who intend to graduate from the Department of Geology should cover, before the junior year, the fundamental courses in mathematics, physics, chemistry, and languages. A first course in Geology and Mineralogy may well be included.

The courses offered in the Department of Geology are grouped as follows: (*a*) Geology, (*b*) Mineralogy and Petrography, (*c*) Economic Geology, (*d*) Paleontology and Stratigraphy. The following courses are generally required of all students: Geology 1, 103, 104, 108, 109, 122, 123, 124, 142, 143, 161, and 163; Engineering 1 and 2; Applied Mathematics 1*a* and 1*b*, or their equivalent; Physics 1 and 2; Chemistry, through Qualitative Analysis; two years of French or German. In addition, it should be noted that Physics 4 is a prerequisite for Geology 122, and Civil Engineering 20 is required for Geology 108 and 109.

In general, advanced courses should be selected only after consultation with the instructor concerned.

For the degree of Bachelor of Arts in Geology, sixty units in the Department are ordinarily required. The substitution of courses in closely related departments, which are of definite value in Geology, may be accepted by the Department Committee.

GEOLOGY

1. General Geology.—The earth, its materials, structure, and internal conditions; the processes which are at work upon and within it; and a brief survey of its historical development. Desirable preparation: Elementary Chemistry and Physics.

5 units, autumn and winter (Reed) MTWThF 8
summer (Knappen)
autumn, 67; winter, 64; summer, 38

1a. Engineering Geology.—This is Geology 1 modified with special reference to the needs of engineers, but open to others. Prerequisites: Elementary Chemistry and Physics.

5 units, autumn quarter (Blackwelder) [Not given in 1922–23]

102. Local Field Geology.—An outdoor study of the rocks and other geologic features in the vicinity of Stanford University, supplemented by periodic conferences and laboratory work. Prerequisite: Geology 1.

2 units, spring quarter (Blackwelder) Friday afternoon
spring, 28

103. Structural Geology.—The conditions and processes of the earth's interior and their effects upon the material and structure of the earth. Prerequisite: Geology 1.
3 units, winter quarter (BLACKWELDER) MWF 8
winter, 30

104. Physiographic Geology.—The operation of surface processes and the origin of land features. Prerequisite: Geology 1.
3 units, autumn quarter (REED) MWF 9
autumn, 8

105. Regional Geology of North America.—The stratigraphy, structure, and history of the geologic provinces of the continent. Prerequisites: Geology 103, 104, and 143.
3 units, spring quarter (BLACKWELDER) [Not given in 1923–24]
spring, 37

107. Advanced Geology.
autumn and *summer quarters (REED, KNAPPEN)
autumn, 11; summer, 9

108. Field Geology.—Field work with the Stanford Geological Survey. Summer camps are established in the Coast Ranges. During the first half of the summer quarter, the geology of the region reached from the camps is worked out and plotted upon topographic maps and sections. All methods of geological mapping where a topographic map is used as the base are taken up. Geologic mapping, controlled by instrumental surveying, is taken up during the second term in Geology 109. Prerequisites: Geology 103, 122, 123, 142, 143; Civil Engineering 20.
8 units, summer quarter, 1st half (TOLMAN)
summer, 42

109. Geologic and Topographic Surveying with the Plane Table.—During the second half quarter each student member of the Stanford Geological Survey prepares a detailed topographic and geologic map of an assigned area, controlled by accurate instrumental work.
7 units, summer quarter, 2d half (TOLMAN)
summer, 42

110. Geologic Problems or Thesis.—Advanced individual work for seniors and graduates.
3 to 5 units, each quarter (BLACKWELDER) By arrangement
spring, 9

206. Advanced Structural Geology.—Given in 1924 and alternate years. Prerequisite: Geology 103.
3 units, spring quarter (BLACKWELDER) [Not given in 1922–23]

207. Sedimentation.—The characteristics of sedimentary deposits and their significance with reference to geologic history. Prerequisites: two years of Geology and Mineralogy.
5 units, winter quarter (BLACKWELDER) MTWThF 11
winter, 18

211. Journal Club.—All graduate students, members of the faculty, and such undergraduates as may be chosen by the staff will meet weekly to consider papers on current research, reviews of new publications, etc. Each student will present at least one paper each quarter.
1 unit, autumn, winter, and spring quarters [Not given in 1922–23]

215. Research.
Each quarter (BLACKWELDER) units and hours by arrangement
winter, 2; spring, 2; summer, 3

MINERALOGY AND PETROGRAPHY

121. Common Minerals and Rocks.—The study of the more common and important minerals with a brief treatment of the prominent rock types. An elementary course with emphasis upon sight determination and simple physical and chemical tests. Open to students who have had Qualitative Analysis. Primarily for Mining and Metallurgy students, but open to a limited number of other students in order of application.
4 units, spring and *summer quarters (KERR) Lec. WF 11; Lab. WF 1:05–4:05
spring, 9; summer, 10

122. Mineralogy.—An elementary study of geometrical crystallography. The systematic study and determination of the more important non-silicate minerals. Introductory to advanced courses in mineralogy and petrography. Open to students who have had Chemistry 1, 2, 4, 7, and 20. Engineering 3 (Descriptive Geometry) is recommended.
4 units, autumn quarter (ROGERS) Lec. TTh 11; Lab. TTh 1:05–4:05
autumn, 42

123. Mineralogy.—An elementary study of the optical properties of crystals with emphasis upon the polarizing microscope as an instrument of research. Systematic study of the important silicate minerals and their determination by all available methods. Prerequisite: Geology 122, and Physics 4.
4 units, winter quarter (ROGERS) Lec. TTh 11; Lab. TTh 1:05–4:05
winter, 29

124. Petrography.—Study of hand specimens and thin sections of the principal rock types and mineral deposits. In courses 122 and 123 the properties or characters of minerals are considered, while course 124 is primarily concerned with the relations between associated minerals with special reference to their occurrence and origin. Geology 122 and 123 are prerequisites.
5 units, autumn and spring quarters (ROGERS)
Lec. TTh 11; Lab. TTh and one period by arrangement, 1:05–4:05
autumn, 28; spring, 25

225. Advanced Mineralogy.—Advanced work in crystallography, mineralogy, or petrography may be undertaken by properly prepared students.
2 to 5 units, autumn, winter, and spring quarters (ROGERS) By appointment
autumn, 2; winter, 5; spring, 4; summer, 4

PALEONTOLOGY AND STRATIGRAPHY

141. Systematic Paleontology.—History and character of fossils. Three lectures and six hours of laboratory work weekly.
4 units, autumn quarter (SMITH) MWF 10
autumn, 21

142. Historical Geology.—History and character of geologic formations. Three lectures and six hours of laboratory work weekly.
4 units, winter quarter (SMITH) MWF 10
winter, 5

143. Historical Geology.—Continuation of course 142.
4 units, spring quarter (SMITH) MWF 10
spring, 43

144. Systematic Conchology.—Special studies in Tertiary and Recent Conchology of the West Coast. One lecture and two afternoons of laboratory work weekly.
2 units, autumn quarter (SMITH) TTh 1:05–4:05
autumn, 5

145. Tertiary Conchology of California.
2 units, winter quarter (SMITH) TTh 1:05–4:05
winter, 13

146. Paleobotany of California.
2 units, spring quarter (SMITH) TTh 1:05–4:05
spring, 3

147. General Geology of California.
2 units, autumn quarter (SMITH) TTh 10
autumn, 18

148. Detailed Stratigraphy of California.
2 units, winter quarter (SMITH) TTh 10
winter, 17

149. Stratigraphic History of the Great Basin.
2 units, spring quarter (SMITH) TTh 10
spring, 9

250. Advanced Paleontology.—Original investigation of various problems in paleontology, especially of invertebrate morphology, and of the distribution of faunas. This course will consist entirely of private work in field and laboratory. Open to advanced students and graduates.
2 to 5 units, all quarters (SMITH) By arrangement
autumn, 4; winter, 4; spring, 9; summer, 2

ECONOMIC GEOLOGY

161. Non-Metals.—The occurrence, distribution, origin, and geologic methods of investigation of the non-metallic substances. Prerequisites: Geology 1, 121, 142, and 143.
4 units, winter quarter (TOLMAN) MTWTh 8
winter, 29

162. Geology of Oil and Coal.—Prerequisite: Geology 161.
4 units, spring quarter (TOLMAN) MTWTh 9
spring, 13

163. Ores.—The ore-forming processes, modes of occurrence of the various types of ore bodies, and the structures of the ores. A review of the important ore deposits of the United States and of the world. Open to students who have completed Geology 1, 121, 142, and 143.
4 units, spring quarter (TOLMAN) MTWTh 8
spring, 39

264. Petroleum Technology.—(Same as Mining and Metallurgy 103.)
3 units, winter and spring quarters (TICKELL)

265. Seminar in the Origin and Accumulation of Oil.—(Same as Mining and Metallurgy 250.) A critical study of the literature with reference to the origin and accumulation of oil. Prerequisites: Geology 161, Mining 241–249 inclusive. Students admitted only after personal consultation with the instructor.
4 units, spring quarter (TOLMAN) TTh 9–11

266. Seminar in Ore Deposits.—A review of the literature of ore deposits and the bearing of the data collected upon the problems of ore formation. Prerequisite: Geology 124. For seniors and graduate students. (Three lecture and conference periods and one to three laboratory periods.)
4 to 6 units, winter quarter (TOLMAN) TTh 9–11
winter, 9

267. Special Courses.—These include: (*a*) a study of the literature of some special phase of economic geology, with a thesis; (*b*) field inves-

tigations of some mine or mineral district, or the general economic geology of an assigned area; (*c*) microscopic studies of ores collected during field studies, or microscopic investigation of suites of specimens owned by the University. (For graduate students; in exceptional cases seniors will be admitted.)

winter and spring quarters (Tolman) By arrangement
winter, 2; spring, 9

GERMANIC LANGUAGES

William Alpha Cooper, Karl Gustav Rendtorff, Professors.
Bruno Boezinger, Associate Professor.
Catharine Morris Cox, Instructor
Helena May Nye, Assistant in Instruction.

The elementary and intermediate courses listed below are designed to prepare students to read German without translation, and to express ideas in simple German prose. Those who have completed courses 101, 102, and 103 may take any more advanced course for which, in the judgment of the instructor in charge, they are prepared. Courses 176, 188, 191, 192, 193, and 200*a* are given entirely in English; the other advanced courses presuppose considerable facility in reading German, and some of them are conducted in German. Courses not assigned to any particular quarter, and with "By arrangement" instead of definite hours in the time schedule, will be given whenever there is sufficient demand for them.

Candidates for the A.B. degree in Germanic Languages are expected to take thirty units beyond second-year German, i. e., from courses numbered 101, 102, 103, 111, and higher.

Candidates for the Teacher's Recommendation in German as a major subject are expected to take second-year German (fifteen units) and the following: eleven units elected from courses 101–104, 111, and 151; two units from courses 161, 162, and 231; fifteen units from courses 174–178, 182–187, 200, 224; and two units from courses 191–193. Proficiency in German will be insisted upon.

Candidates for the Teacher's Recommendation in German as a minor subject are expected to take, in addition to second-year German (fifteen units), fifteen units elected from courses 101–104, 111, 151, 161, 162, 174–178, and 182–187. Proficiency in German will be insisted upon.

Candidates for the A.M. degree in Germanic Languages are expected to take fifteen units, including course 251, in addition to the requirements for the A.B. degree.

Candidates for the Ph.D. degree are referred to the bulletin on Graduate Study.

The library facilities are good, and the collections are being strengthened in all directions. The private library of the late Professor Hildebrand, of the University of Leipzig, furnishes valuable material, particularly in the older literature and in lexicography. In modern literature the Library offers good opportunities for advanced work, the Goethe collection being especially satisfactory. The files and the current numbers of the most important journals are at hand.

The department maintains, in room 112, a special library of its own, including a collection of German textbooks and a model reference library for a secondary-school teacher. This collection of books is supplemented by an extensive collection of maps, wall pictures, and lantern slides, suited for use in teaching.

For courses 1, 2, and 3, First-year German, a special university fee of $7.50 per quarter is charged.

1. First-year German.—It is the object of this course to put the learner in possession of the elements of the German language. This implies: (1) a personal command of simple German, that is, the ability to understand such German, whether heard or read, and to employ the language in simple conversation, narration, and description, both orally and in writing; (2) such a ready familiarity with the elements of German grammar as is essential for the attainment of this command of the language.

5 units, autumn quarter (Cox, Nye) MTWThF 8, 9, 11
autumn (3 sections), 130

2. First-year German, continued.

5 units, winter quarter (Cox, Nye) MTWThF 8, 9, 11
winter (3 sections), 103

3. First-year German, continued.

5 units, spring quarter (Cox, Nye) MTWThF 8, 9, 11
spring (3 sections), 96

[Note.—Courses 1, 2, and 3, together, are equivalent to two years of German in the high school, and may be taken by students who have presented no units of credit in German for entrance into the University. Those who present one unit for entrance may take courses 2 and 3.]

11. Special Introductory Course.—The aim of this course is to prepare candidates for the Ph.D. degree in other departments to read the literature in German in their particular fields. A rapid review of the elements of German grammar is followed by intensive practice in reading and translation. Course 1 should precede this course. Permission of the instructor necessary before registration.

2 units, winter and spring quarters (Cox) By arrangement
winter, 6; spring, 3

15. German Pronunciation.—Practice in reading aloud and declaiming. Prerequisites: courses 1 and 2.

1 unit, spring quarter (Boezinger) By arrangement
spring, 10

20. Free Reading.—Open to students who have had a year or more of German. Permission of the instructor necessary before registration. Thirty-six hours of reading per unit, and weekly conferences with the instructor.

1 or 2 units, each quarter (Cox, Nye) By arrangement
autumn, 30; winter, 27; spring, 28; summer, 21

21. Second-year German.—The aim of this course is to extend and strengthen the student's personal command of German, both oral and written. The course is taken to best advantage as a whole, but may be taken in part, either the division 21*a*, which is devoted to the reading and discussion in German of texts selected from the writings of contemporary or late nineteenth century authors, or the division 21*b*, which affords training in composition, conversation, and practical grammar.

21a. Second-year Reading.

3 units, autumn quarter (Boezinger, Cox) MWF 9, 11
autumn, 18

21*b*. *Second-year Composition.*
2 units, autumn quarter (BOEZINGER) TTh 9
autumn, 13

22. Second-year German, continued.

22*a*. *Second-year Reading.*
3 units, winter quarter (BOEZINGER, COX) MWF 9, 11
winter, 16

22*b*. *Second-year Composition.*
2 units, winter quarter (BOEZINGER) TTh 9
winter, 10

23. Second-year German, continued.

23*a*. *Second-year Reading.*
3 units, spring quarter (BOEZINGER, COX) MWF 9, 11
spring, 10

23*b*. *Second-year Composition.*
2 units, spring quarter (BOEZINGER) TTh 9
spring, 7

[NOTE.—Second-year German (which includes courses 21, 22, and 23) is the equivalent of the third and fourth years of German in the high school. Students who present three units in German for entrance may take courses 22 and 23, or 23 and 24.]

24. Second-year German.

24*a*. *Second-year Reading.*
3 units, summer quarter (NYE) MWF 8
summer, 10

24*b*. *Second-year Composition.*
2 units, summer quarter (NYE) By arrangement
summer, 1

25. Scientific German.
3 units, autumn quarter (BOEZINGER) MWF 9
autumn, 23

26. Scientific German, continued.
3 units, winter quarter (BOEZINGER) MWF 9
winter, 20

27. Scientific German, continued.
3 units, spring quarter (BOEZINGER) MWF 9
spring, 16

[NOTE.—Courses 25, 26, and 27 form one continuous course, but credit may be obtained for the work of any quarter separately. Prerequisites: Courses 1, 2, and 3, or two entrance units in German. Not open to freshman students.]

28. Scientific German.
3 units, summer quarter (NYE) MWF 9
summer, 9

100. Directed Reading in Scientific German.—Prerequisites: Second-year German or Scientific German, three quarters. Thirty-six hours of reading per unit, and weekly reports to the instructor.
1 to 3 units, each quarter (BOEZINGER, NYE) By arrangement
autumn, 18; winter, 12; spring, 20; summer, 7

101. Novels.—A course in rapid reading of modern novels, with discussions in German of their subject matter and technique.
3 units, autumn quarter (COX) MWF 11
autumn, 6

102. Classical Dramas.—A continuation of course 31, the works read being, for the most part, dramas of the Classical period.
3 units, winter quarter (COOPER) MWF 11
winter, 7

103. Recent Dramas.—A continuation of course 31, the works read being, for the most part, dramas of the last fifty years.
3 units, spring quarter (COOPER) MWF 11
spring, 4

104. Dramas and Novels.—A continuation of course 31.
3 units, summer quarter (COOPER) MWF 9
summer, 4

111. Advanced Composition.—By composition is meant, not translation from English, but the employment in connected prose of German material either gathered from reading or specially assigned by the instructor.
1 or 2 units, each quarter (BOEZINGER, COOPER) By arrangement
autumn, 2; winter, 2; spring, 1; summer, 4

150. Directed Reading.—Prerequisites: Second-year German for three quarters, and, if possible, one or more of the courses 101 to 104. Individual courses of reading, suited to special needs and desires. Thirty-six hours of reading per unit, and brief interviews, once a week, with the instructor.
1 or 2 units, each quarter (COOPER, RENDTORFF) By arrangement
autumn, 5; winter, 7; spring, 9; summer, 7

151. Individual Composition.—The aim of this course is to develop correct, idiomatic, and adequate expression.
1 unit, each quarter (RENDTORFF) By arrangement
autumn, 2; winter, 1

152. Individual Work.—Training in other lines than directed reading, to meet special needs.
1 or 2 units, each quarter (COOPER) By arrangement
spring, 5; summer, 3

161. German Etymology.
2 units, spring quarter (COOPER) By arrangement
spring, 2

162. German Syntax.
2 units (COOPER)

174. Goethe's Lyrics.—A study of Goethe's lyrics in relation to his life and to his conception of the poet's calling.
3 units, winter quarter (COOPER) MWF 9
winter, 5

175. Goethe's Faust.—Course conducted in German.
3 units (COOPER) By arrangement

176. Goethe's Faust in English Translation.—An all-English course.
3 units, spring and summer quarters (COOPER) MWF 8
spring, 14; summer, 3

177. Schiller's Works.
3 units, spring quarter (RENDTORFF) TTh 10
spring, 5

178. Heine and the Young German Movement.
3 units, autumn quarter (RENDTORFF) TTh 10
autumn, 2

182. History of the Nineteenth Century Literature.
3 units, autumn quarter (RENDTORFF) MWF 10
autumn, 2

185. Current Literary Movements.
3 units, winter quarter (RENDTORFF) MWF 10
winter, 1

186. The Development of the Drama.
3 units, spring quarter (RENDTORFF) MWF 10
spring, 2

187. The Development of the Novel.
3 units, summer quarter (COOPER) TTh 8
summer, 7

188. General Survey of German Literature.—Lectures in English, readings from English translations.
2 units (RENDTORFF)

[**191. History of Germany.**—See History 157.]
3 units, autumn quarter (RENDTORFF) MWF 8
autumn, 4

192. History of German Civilization.—Lectures, with stereopticon.
2 units, winter quarter (RENDTORFF) MW 2:05–4:05
winter, 7

193. Art and Literature.—The relation between formative art and literature in Germany. Lectures with stereopticon.
2 units (RENDTORFF)

200a. Modern Language Teaching.—Lectures on the various methods of teaching modern foreign languages, and the psychology involved.
1 unit (COOPER) By arrangement

200b. German Teacher's Course.—Instruction and practice in progressive methods; examination of textbooks and illustrative material.
2 units (COOPER) By arrangement

200c. The Teaching of Literature.
1 or 2 units (RENDTORFF) By arrangement

200d. Practice in Teaching of Elementary German.—This course should be registered for under the proper number in the Department of Education.
3 units, autumn, winter, and spring quarters (COOPER) By arrangement

221. Gothic.
2 units (BOEZINGER) By arrangement

223. Old High German.
2 units By arrangement

224. Middle High German.—Grammar and selected texts.
2 units, winter and spring quarters (RENDTORFF) By arrangement
winter, 2; spring, 1

231. Comparative Grammar of German and English.
3 units By arrangement

241. Seminary.
3 units By arrangement

251. Master's Thesis.—The candidate reports weekly to the instructor in charge for criticism, the work extending over three quarters, as a rule.
1 to 3 units, each quarter (COOPER, RENDTORFF) By arrangement
autumn, 1; winter, 1; spring, 1

HISTORY

Payson Jackson Treat, Ephriam Douglass Adams, Professors.
†Frank Alfred Golder, Edward Maslin Hulme, Ralph Haswell Lutz, Percy Alvin Martin, Edgar Eugene Robinson, Associate Professors.
Yamato Ichihashi, Reginald George Trotter, Assistant Professors.
Edward Latimer Beach, Captain U. S. N., Retired, Acting Assistant Professor.

The Department of History provides a liberal course for the A.B. degree, offers opportunity for graduate study leading to higher degrees, in certain selected fields in which the University is especially well equipped, trains teachers of History, and renders a general service to the other departments of the University.

In addition to its more specialized work, the Department offers a number of courses grouped as (I) Introductory and (II) Advanced Lecture Courses intended to meet the general needs of the University constituency. The underlying principle of these courses is that they shall be useful, not in the utilitarian sense, but in the sense that they aid in equipping the student for his duties as a citizen and in giving him instruction that may be helpful in such work as Law, Journalism, Library Research, State and National Public Service, and in business where a knowledge of domestic and foreign affairs is desirable.

For History majors the curriculum for the degree of A.B. is designed to familiarize the student with the fundamentals and methods of the chief branches of knowledge, and with the methods of historical science. With this object in view, a general system of advice and requirement has been outlined, but it may be varied to suit the circumstances of the truly exceptional student. Under the four-quarter system 180 units are required for graduation. The general system of the History Department prescribes 45 units of History, of which 3 are required in an Introductory Seminar, and 6 in one or two Seminar Courses. In addition to the requirements of the Lower Division the Department requires eight units in Economics or Political Science, and a reading knowledge of at least one foreign language by the end of the Junior year.

Advanced Degrees.—Graduate students, candidates for advanced degrees, are desired and will be given personal guidance, but the purposeless graduate student will not be accepted by the Department. For the opportunities of graduate study in History see University Bulletin on Graduate Study.

Graduate students seeking to fulfill the requirements of the State Board of Education for the Teacher's Certificate will be given the necessary aid and opportunities, but will register as majors in the School of Education. (See University Bulletin of School of Education.)

The Teacher's Recommendation in History.—Applicants for the departmental recommendation, as a major, must have completed in a

† Absent on leave, 1922–23.

manner acceptable to the department at least 42 units of History, as follows: (1) Seminar Courses aggregating at least 6 units; (2) Introductory Seminar Course, 3 units; (3) the Teacher's Course in History (History 200), 3 units; (4) 30 units in the group of courses selected from the following fields: Medieval and Modern History (courses 10–14 inclusive); English History (courses 16 and 17); Far Eastern History (courses 27–32 inclusive); American History (courses 21–24 inclusive); Latin-American History (courses 36 and 37). History majors may substitute for any two of the Introductory Courses 10 units of Ancient History as offered by the Department of Classical Literature.

As prerequisite to the departmental recommendation in History for the high school teacher's certificate as a minor the student must have completed at least 27 units in either European or American History, as follows:

1. For the minor in European History: (*a*) 15 units in the group of Introductory Courses selected from the fields of European History, English History, and Far Eastern History; (*b*) 3 units in an Introductory Seminar Course; (*c*) 6 units in a Seminar Course; (*d*) the Teacher's Course in History, 3 units.

2. For the minor in American History: (*a*) 15 units in the group of Introductory Courses selected from the field of American History and Latin-American History; (*b*) 3 units in an Introductory Seminar Course; (*c*) 6 units in a Seminar Course; (*d*) the Teacher's Course in History, 3 units.

Any student who has secured the minor recommendation of the department in either European or American History may thereafter earn the major recommendation by completing the 15 units of the Introductory Courses in the opposite group.

Students taking History as a major with the intention of preparing for Journalism are referred to the heading Journalism on page 77.

I. Introductory Courses

[**Greek History.**—See under Classical Literature, courses C1, 2, 3, 4.]

[**Roman History.**—See under Classical Literature, course C5.]

10. European History, 395–1300.—A general course dealing with the development of medieval life and institutions, with special attention to feudal conditions, and also to the church as the controlling force influencing every element of the life of the time. Open to all students.

3 units, autumn quarter (Hulme) MWF 9
autumn, 201

11. European History, 1300–1600.—A continuation of History 10, with special emphasis upon the Renaissance and the Reformation. Open to all students.

3 units, winter quarter (Hulme) MWF 9
winter, 238

12. Europe Since 1600.—A survey of the political, economic, and social development of the European nationalities with special emphasis upon the period of absolutism, industrial revolution, French revolution, growth of democracy and nationalism, and the world war. Open to all students.

3 units, spring quarter (Lutz) MWF 9
spring, 209

13. The History of Modern France.—A general survey course of institutional, social, and political development from the foundation of Bourbon absolutism to the close of the world war. Open to all except freshman students.
2 units, winter quarter (LUTZ) TTh 11
winter, 51

14. History of Russia.—A general survey of the beginnings and earlier period of Russian history. Open to all except freshman students.
5 units, spring quarter (GOLDER) MTWThF 8

16. English History to 1603.—A general outline course on the making of the English state and nation to the death of Elizabeth, with emphasis upon events and institutions especially significant for the later history of the English-speaking peoples. Open to all students, though especially intended for those in the Lower Division.
5 units, winter quarter (TROTTER) MTWThF 11
winter, 110

17. England Since 1603, and British Overseas Expansion.—A continuation of History 16.
4 units, spring and summer quarters (TROTTER) MTWF 11
spring, 170

20. Recent United States History.—Political, industrial, and diplomatic history since 1880.
2 units, summer quarter (1923) (ADAMS) TTh 9
summer, 50

21. American History, 1607–1789.—A survey of the English colonization of the Atlantic Seaboard and of the westward movement of colonists of the British Empire, followed by a consideration of the Revolution and of the formation of the American government. Open to all students.
3 units, autumn quarter (ROBINSON) MWF 8
autumn, 180

22. American History, 1789–1848.—Presidential administrations from Washington to Polk; the War of 1812; industrial changes and expansion; abolition; political changes; territorial expansion. Open to all students.
3 units, winter quarter (ADAMS) MWF 10
winter, 147

23. American History, 1848–1920.—Slavery issues; the Civil War; reconstruction; industrial changes; new political parties and theories; the United States and world politics. Open to all students.
3 units, spring quarter (ADAMS) MWF 10
spring, 149

24. The Westward Movement.—A survey of the expansion of the American people into the Mississippi Valley, and the American occupation of the Pacific Northwest and of California. Open to all except freshman students.
4 units, spring quarter (ROBINSON) MTWF 8
spring, 157

27. The Far East.—An account of the relations between Western nations and the peoples of Eastern Asia. Emphasis is placed upon international relations, especially since the middle of the 19th century, rather than upon the domestic history of the Eastern nations. The work of the Portuguese, Dutch, and British is studied and special attention is

given to the rise of the British Empire in India. Open to all except freshman students.

5 units, autumn quarter (TREAT) MTWThF 9
autumn, 165

28. The Far East.—The relations of the West with China, Indo-China, Japan, and the Philippines. Open to all except freshman students.

5 units, winter quarter (TREAT) MTWThF 9
winter, 202

31. History of Japan to 1600.—A survey of, and an attempt to interpret, the history of the ancient and medieval civilization of Japan. Particular attention is paid to the origin of the Japanese race, early influence of the continental civilizations, the Great Reform of 645, the Taiho Code of 701, the position of Buddhism and Buddhists in Nara civilization, Japanese language, Heian or classical culture of Japan, the rise of feudalism, the feudal institutions of Kamakura, the Mongol invasions, Japan's foreign relations, the religions, Shintoism, Buddhism, and Christianity, and Hideyoshi's colossal ambitions. Open to all except freshman students.

4 units, autumn quarter (ICHIHASHI) MTWF 8
autumn, 22

32. History of Early Modern Japan, 1600–1854.—A detailed examination of feudal Japan under the Tokugawa in order to obtain the underlying factors in Japanese life. Special attention is given to the political and social structure of the country, to Tokugawa laws and legal institutions, Japan's foreign and domestic commerce and commercial institutions, industrial development and industrial arts, fine arts, education, philosophy, science and literature, and Bushido. Open to all except freshman students.

4 units, winter quarter (ICHIHASHI) MTWF 8
winter, 43

36. History of Spanish America.—An outline course, dealing chiefly with the Spanish Colonial System and the Spanish-American Wars of Independence. Open to all except freshman students.

5 units, autumn quarter (MARTIN) MTWThF 9
autumn, 56

37. History of South America Since 1823.—A continuation of History 36. An outline course dealing with the history and institutions of the leading nations of South America; includes the discussion of such topics as the Monroe Doctrine, Pan-Americanism, and the relations between the United States and Latin America.

5 units, winter quarter (MARTIN) [Not given in 1922–23]

38. History of Latin America.—A general outline course dealing with the colonial expansion of Spain and Portugal and with the political, social, and industrial development of the leading republics of Latin America

2 units, summer quarter (1923) (MARTIN) MTWF 9
summer, 86

40. The Great War.—A survey of the causes, campaigns, and results of the war of 1914. Open to all students.

2 units, spring and *summer quarters (1923) (BEACH)
spring, 259; summer, 97

II. Advanced Lecture Courses

[The courses in this group are intended for students of at least junior standing, but sophomores may be admitted at the discretion of the Instructor.]

[**History of Roman Civilization.**—See under Classical Literature, course C6.]

150. The Italian Renaissance.—The development of the new humanism in its relations to the political, social, and religious life of the time. The lectures will deal with the sources as well as the evolution of the new and broadening thought of this critical and formulative period; with the revival of nationality and individuality, of literature, of art, of science, and of conscience, with the changing economic and social conditions; and with the development of political theory and the transformation of law.

3 units, autumn quarter (Hulme) [Not given in 1922–23]

152. The End of the Middle Ages.—A study of the phenomena, such as the rise of towns, of new nations, and of new thought, that, in the twelfth and thirteenth centuries, prepared the way for the Renaissance.

3 units, autumn and *summer quarters (Hulme) MWF 10
autumn, 16; summer, 37

153. Europe Since 1815.—A course of lectures on the conflict of Reaction and Liberalism, the Industrial Revolution, the emergence of class consciousness, nationalism and imperialism, the Great War and the terms of peace.

3 units, autumn quarter (Lutz) MWF 10
autumn, 28

154. Central Europe in the Nineteenth and Twentieth Centuries.—A survey of domestic and international developments from 1815 to 1920.

3 units, autumn quarter (Golder) MWF 11

155. The Baltic States.—An outline history of the development and relations to Europe, of Sweden, Norway, Finland, and Denmark.

3 units, winter quarter (Golder) MWF 11

156. History of Canada.—A survey of the evolution of the Dominion of Canada. Preliminary consideration of the periods of discovery, of early trade and settlement by French and British, and of the contest between France and Britain for empire, followed by a survey of the further development of the several colonies, their achievement of responsible government, their consolidation and expansion into a continent-wide federal dominion and growth to autonomous nation-hood as a member of the British Empire Commonwealth. Emphasis also upon the significance, in Canadian History of Canada's nearness to and relations with the United States. [Autumn, 1922–23.]

4 units, spring quarter (Trotter) MTWF 9
autumn, 11

157. History of Germany.—A general survey, with particular emphasis on the period since 1848.

3 units, autumn quarter (Rendtorff) MWF 8

158. British Constitutional History.—An attempt to explain the development, the underlying principles, and the operation of the British constitution. It is also the aim of the course to give a background for American constitutional history. Lectures and reading. Concerning introductory seminar work in this subject see History 180.

4 units, winter quarter (Trotter) MTWTh 10
winter, 43

161. History of the Far West.—The growth and development of the trans-Mississippi region, with particular emphasis upon the history of California.
4 units, winter quarter (Robinson) MTWF 8
winter, 28

162. History of the West.—A consideration of the political phases of the expansion of the American people; an examination of new issues and new groups that have risen in the West and their influence upon national party history.
2 units, autumn quarter (Robinson) [Not given in 1923–24]
autumn, 23

164. British-American Diplomatic Relations.—Lectures and reading on those incidents or conditions in foreign policy where the United States has come into conflict or contact with the foreign policy of Great Britain and her colonies; with a survey of the general purpose of British and of American foreign policy throughout the hundred-year period.
3 units, autumn quarter (Adams) [Not given in 1922–23]
3 units, summer quarter (1923) (Adams) MWF 11
summer, 30

166. History of Australasia.—An account of British colonization in Australia and New Zealand to the present time. Open to third-year students who have a satisfactory knowledge of English history.
3 units, spring quarter (Treat) [Not given in 1923–24]
spring, 48

167. Tropical Colonization in the Far East.—A study of the present methods of the English, Dutch, French, and American governments in their tropical dependencies in the Far East. Open to students who have taken course 27.
3 units, spring quarter (Treat) MWF 9

168. Modern Japan Since 1854.—A critical study of political and economic Japan since 1854 in order to determine the causes that enabled the nation to attain her present position in the world of politics and economics. Special attention is paid to political movements since the reopening of Japan to Western intercourse and to the promulgation of a constitution in 1889, or the struggle between feudalism or bureaucracy and liberalism or democracy.
3 units, spring quarter (Ichihashi) [Not given in 1922–23]
3 units, summer quarter (1923) (Ichihashi) MWF 10
summer, 20

169. Japanese Foreign Relations Since 1894.—A critical examination of Japanese foreign relations beginning with the Chinese-Japanese War in 1894-95. Special attention will be given to her imperialism and to her position in world politics.
2 units, summer quarter (1923) (Ichihashi) TTh 10
summer, 13

170. History of Mexico and California.—A somewhat detailed study of the history of Mexico up to the present time, and of the history of California to 1848.
3 units, spring quarter (Martin) MWF 11
spring, 32

171. Latin American Institutions.—This course deals with the recent

history and present-day political institutions of the leading republics of Latin America.
3 units, summer quarter (1923) (MARTIN) MWF 11
summer, 13

172. American Naval History.—A lecture course presenting an account of the development of the American navy, its activities, and its historical influence.
[In 1922–23 this course was given as 72, 2 units, autumn quarter, and 73, 2 units, winter quarter.]
3 units, winter quarter (BEACH) MWF 11
autumn, 25; winter, 70

174. American Military History.—A lecture course outlining the organization, development, and activities of the United States Army.
3 units, autumn quarter (BEACH) MWF 11
autumn, 46

[**Law 215. International Law.**—A course given by the Law Department, strongly advised for History majors interested in world politics and relations. It will be accepted for credit in fulfilling the History requirements for the A.B. degree. Open, at the discretion of the instructor, to majors of other than the Law Department in their third or fourth year.
4 units, winter quarter (BINGHAM)]

[**Law 225. Constitutional Law I.**—Accepted for credit in fulfilling the History requirements for the A.B. degree.
3 units, autumn quarter (CATHCART)]

[**Law 226. Constitutional Law II.**—Accepted for credit in fulfilling the History requirements for the A.B. degree.
3 units, winter quarter (CATHCART)]

III. INTRODUCTORY SEMINAR COURSES

[The courses in this group are intended primarily for History majors in their junior year as preparation for senior seminars, or graduate work. If a course is not filled by History majors, others may be admitted at the discretion of the Instructor.]

177. Historical Method.—A course preparatory to historical research and to the teaching of history. It will discuss what history is, what it is for, what are its materials, what are its methods, what are its relations to neighbor studies, how to read history, how to study it, and how to write it. It will also provide for introductory studies of some of the sciences that are auxiliary to history.
3 units, autumn and summer quarters (HULME) TTh 10
autumn, 26; summer, 22

178. Nineteenth Century European Problems.—Papers and class discussions on important domestic and foreign problems of European nations. Open to History majors, with two years of credit.
3 units, autumn quarter (GOLDER) MWF 9

180. Selected Topics in British Constitutional History.—Specialized study of selected topics dealt with in more summary fashion in History 58, to which course this is supplementary. Open to any History majors taking History 158, but to other students only at the discretion of the instructor.
2 units, winter quarter (TROTTER) F 10
winter, 6

184. The World War.—A general survey of the period of the war and the armistice, with assignment of special topics for study from materials in the Hoover War Library.
3 units, winter quarter (Lutz) MWF 11
winter, 18

186. Relations Between California and the Federal Government.—An examination of materials revealing the problems of California and their relation to national development.
3 units, spring quarter (Robinson) M 3–5
spring, 14

188. American Diplomatic Relations.—Not a general survey of the field, but a specialized study of selected topics, with use of the available documentary material. Intended primarily for History majors, but open to junior students who are familiar with the elements of American and European History.
3 units, autumn quarter (Adams) [Not given in 1922–23]

190. Selected Topics in Far Eastern History.—Designed to introduce the student to materials in Western languages useful in the study of the modern History of the Far East. Open to those who have had History 28. [In 1922–23, this was "Tropical Colonization in the Far East."]
3 units, spring quarter (Treat) MWF 11
spring, 9

196. History of Brazil.—A somewhat detailed study of the History of Brazil, with special emphasis on the period since 1822. The course will include a comparison of Brazilian political institutions with those of Spanish America and the United States. Open to those who have had History 37 and to others with permission of the instructor.
3 units, autumn quarter (Martin) MWF 11
autumn, 6

197. Selected Topics in Japanese Political History.—Papers, reports, and discussion in class, with examination of materials in English useful to a correct understanding of Japanese institutions.
3 units, spring quarter (Ichihashi) W 2–4
spring, 7

198. Special Studies in American Naval History.—With the purpose of acquainting students with the source materials of the subject.
3 units, winter quarter (1923) (Beach) MWF 9
winter, 18

IV. Seminar Courses

[For History majors primarily, of senior or graduate standing.]

200. The Teaching of History.—A course intended for those students who expect to teach history in intermediate or secondary schools. Its purpose is to make the student acquainted with the aims, the methods, the apparatus, and the literature of the work of teaching history. [In 1922–23, 100, in winter, and 76, in summer quarters.]
3 units, winter and summer quarters (Hulme) MWF 11
winter, 17; summer, 20

205. Seminar in Medieval History.—Subject for 1922–23: Liberal Thought in the 16th Century.
3 units, winter quarter (Hulme) Th 2–4
winter, 15

207. Seminar in Modern European History.—Subject for 1922–23 selected from the period since the beginning of the World War in 1914.
3 units, autumn and spring quarters (Lutz) T 2–4
autumn, 11; spring, 7

210. Seminar in the History of England and the British Empire.—Topics for 1922–23 deals with the history of selected racial problems in the modern British Empire. [In 1922–23, autumn and spring.]
3 units, summer quarter (Trotter) Th 2–4

213. Seminar in the History of the West.—A study of materials relating to the political phases of westward expansion.
3 units, autumn and winter quarters (Robinson) M 2–4
autumn, 5; winter, 3

219. Seminar in American Diplomatic History.—Topics for 1922–23 selected from the period since 1865.
3 units, winter and spring quarters (Adams) W 2–4
winter, 12; spring, 4

222. Seminar in American-European Relations.—Limited to candidates for advanced degrees.
units various, any quarter except autumn (Adams) By arrangement
summer, 16

225. Seminar in the History of the Far East.—Each year some phase or period of the relations of the United States with the Far East will be studied, and each student will prepare a thesis on some special topic of investigation.
3 units, autumn and winter quarters (Treat) T 2–4
autumn, 8; winter, 6

226. Seminar in Russian History.—Topics to be selected from episodes of recent developments.
3 units, winter and spring quarters (Golder) F 2–4

228. Seminar in Japanese History.—Individual investigation under advice and direction of the instructor. [Summer, 1922–23.]
3 units, autumn and winter quarters (Ichihashi) Th 2–4
autumn, 1; winter, 1; summer, 4

231. Seminar in Latin-American History.—Subject for 1922–23: Diplomatic Relations between the United States and Latin America.
3 units, winter and spring quarters (Martin) M 2–4
spring, 8

232. Seminar in American Naval History.—Subject for 1922–23: The Spanish-American War.
3 units, autumn and winter quarters (Beach) W 2–4
autumn, 19; winter, 31; spring, 2

240. Graduate Work.—Students properly qualified under the University regulations, to pursue genuine graduate studies, will be given special attention and due credit allotted for the work accomplished. Such students will receive individual advice and guidance, whether in set courses or in special research.
units, not to exceed a total of 15 Hours by arrangement
autumn, 1, 2, 5; winter, 2, 3, 4; 3; spring, 3, 3; summer, 4, 3

HOPKINS MARINE STATION

Walter Kenrick Fisher, Director.
Frank Mace McFarland, Ernest Gale Martin, George James Peirce, Professors (Summer Quarter, 1923).
Charles Wilson Greene (University of Missouri), Acting Professor (Summer Quarter, 1923).
John Otterbein Snyder, Associate Professor (Summer Quarter, 1923).
Charles Vincent Taylor (University of California), Acting Assistant Professor (Summer Quarter, 1923).
Margery Bailey, Instructor (Summer Quarter, 1923).

The Hopkins Marine Station is situated at Pacific Grove, on the south side of Monterey Bay, California. The ground area comprises seven and a half acres, consisting of the main portion of Cabrillo Point, with complete control of the coast line of the Point and including an excellent sheltered landing place and harbor for boats of considerable size. The present building, erected in 1917, is of reinforced concrete construction, approximately forty feet by eighty-three feet, and three stories in height. The first floor provides a physiological laboratory, containing a large floor aquarium, divisible into three compartments by movable partitions; a concrete-floored room for the storage of boats, collecting apparatus, etc., and for the storing of collections; a large storeroom, men's lavatory, furnace room, photographic darkroom, and janitor's rooms.

The second floor, into which the main entrance opens, is devoted to the three large general laboratories. Two private laboratories for instructors are also provided on this floor. The third floor contains a large library, with a generous fireplace, an adjoining office room, an advanced laboratory, six commodious private laboratories for investigators, and a restroom for women. Fresh and salt water is provided in each laboratory, the sea water being pumped to a concrete tank upon the roof, whence it is distributed to the various aquarium tables. Heating is provided by a hot-air system, and electric lights and gas are installed. From the third floor a stairway gives access to the flat, parapeted roof where open-air aquaria may be set up as needed.

There are thus five laboratories available for classes and eight private laboratories for investigators.

The Station fulfills a twofold purpose: first, it provides for research in biology; second, it furnishes, under exceptional natural advantages, elementary and advanced instruction in biology.

The Station is open the entire year. Investigators and special students can be accommodated at any time, but regular classes are scheduled for the Summer Quarter only.

Admission and Fee

To investigators prepared to carry on research the use of the Station facilities is tendered free of charge.

A General Fee of *seventy-five dollars* per quarter is payable by all undergraduate students taking regular courses or pursuing special work, and a similar fee of *fifty dollars* is payable by all graduate students.

(For all students matriculating in the University before October, 1921, the fee is forty dollars per quarter.)

Application and Payments in Advance

Owing to limited laboratory space, it will be necessary, in order to avoid confusion, for all undergraduate students to make application to the Director in advance, stating (preferably on a special form) courses in which registration is desired, and possible alternative courses. On notification, or as soon as possible after June 1st, students will deposit with the Director, for reservation of laboratory space, ten dollars of the General Fee. The balance will be payable on Registration Day, at the Station.

Late registration will be permitted only with the approval of the Director and of the instructors concerned.

Courses Scheduled for the Summer Quarter, 1923

elementary courses

1. General Zoology.—A course designed to give a general view of the animal kingdom—the types of animals, general life processes, life histories, structure, development, and classification. Excursions will be made to various points along the shore in order that students may collect and observe living animals.

Students taking this course are required to register also in course 3, but in certain cases either 2 or 4 may be substituted.

5 units (Taylor) MTWThF 8–10
summer, 15

2. The Natural History of Tide-pool and Reef Fishes.—An introduction to the investigation of problems relating to habits, growth, distribution, reaction to environment, food, migration, instinct, etc., of certain species of fishes which inhabit the tide-pools, reefs, and bars of the neighboring coast. The course will include field work which will take full advantage of the rich and varied fauna, laboratory experiments, and a survey of pertinent literature.

Open to all. The more difficult phases of the work will be assigned to advanced students.

(Snyder) Hours and credit by arrangement
summer, 9

3. Elementary Physiology.—This course is designed to give a general survey of physiology with special reference to marine animals and plants, and the application of the fundamental principles thus developed to the functions of other forms, including man. It is planned to accompany the elementary courses in zoology and botany and to be so coördinated as to supplement the morphological conceptions developed in these courses with the basic principles of physiology, thus furnishing to those students taking this group of studies a comprehensive and balanced survey of biology. It includes a study of the adaptive mechanisms of organisms, the muscles, sense organs, and nervous system; the method of maintenance, energy-liberation, growth, and reproduction. The laboratory work illustrates these processes as they occur in the forms, both animal and plant, which are present in abundance at the seashore, the morphology and relationships of which will be considered in the courses

which this is intended to accompany. The laboratory work is supplemented by text-book work and lectures pointing out the broader relations of the facts observed and their application to human physiology. For regularly enrolled undergraduates the requirements will be concurrent registration in General Zoology.

5 units (GREENE, MARTIN, PEIRCE, AMBLER) MTW afternoons
summer, 9

4. Elementary Botany.—Elementary anatomy and physiology of plants. A study of the structure of plants with a view to understanding their vital processes and their relations to man.

5 units (PEIRCE) ThF afternoons, S morning
summer, 5

The combination of courses suggested (General Zoology, Elementary Physiology, and Elementary Botany) will be accepted as counting toward the requirement in biology for those desiring to register in Medicine.

Text-books: The Human Body, Martin, Advanced Course, tenth edition; General Biology, Burlingame, Heath, Martin, Peirce; text-book of Botany, Coulter, Barnes, Cowles, vol. 1.

ADVANCED COURSES

5. The Natural History and Classification of Marine Invertebrates.—The object of this course is to give the student the widest possible acquaintance with the animals which live along shore and in the plankton of Monterey Bay. While an extensive knowledge of invertebrate forms is aimed at, some one group, in which the student becomes interested, will be studied more intensively. The prescribed work will also include a study of the associations of animals, their distribution, and something of their behavior, or simple reactions.

5 units (FISHER) MTWThF 8–10
summer, 6

6. Comparative Anatomy of Marine Vertebrates.—This course will deal largely with fishes and fish-like chordates, although amphibians, reptiles, and mammals will be used for comparative studies. Open to students who have the necessary elementary preparation.

5 units (SNYDER) Hours by arrangement
summer, 3

7. Comparative Embryology.—A study of the structure and development of the reproductive cells, the cytological phenomena of maturation and fertilization, cleavage, the formation of the germ layers and their subsequent differentiation in as varied a series of marine forms as possible. This will be supplemented by the consideration of the fundamental facts of vertebrate development. Students prepared for such work may receive guidance in beginning research in these lines or in Comparative Histology. Prerequisite: General Zoology.

5 units (MCFARLAND) Hours by arrangement
summer, 6

8. Microdissection of the Cell.—The morphology of the living cell studied with the aid of microdissection apparatus. Special attention will be given to the structure and behavior of protoplasm during mitosis, maturation, and fertilization. Limited to senior and graduate students.

(TAYLOR) Hours and credit by arrangement
summer, 1

9. Zoology Research.—Research or special work in the field of morphology, taxonomy, and ecology of invertebrates.
(FISHER) Hours and credit by arrangement
summer, 5

10. General Physiology.—Advanced instruction and research in general physiology.
(GREENE) Hours and credit by arrangement

11. Advanced Plant Physiology.—Experimental study of a single problem by one or more individuals.
(PEIRCE) Hours and credit by arrangement
summer, 1

ENGLISH COURSES

English Composition (English 2).—The study and practice of exposition.
3 units (BAILEY)
summer, 9

English Classics (English 10).—A study of representative works of great English writers, with assigned reading and discussion.
5 units (BAILEY)
summer, 4

Free Reading (English 13).—General reading under direction in the field of the student's own interest, with weekly meetings for discussion of the reading done.
2 units (BAILEY)
summer, 9

A full quarter's schedule of fifteen units may be taken by registering for three 5-unit laboratory courses, or for one or two laboratory courses, with the balance in courses in English. Courses 1, 3, and 4 will count toward the requirement in biology for those desiring to register in Medicine, while the courses in English will fulfill the English requirements of medical students. Courses 1, 5, and 6 are major requirements in the Department of Zoology, and course 6 is also required of medical students.

Students will not be accepted for a half-quarter registration in courses 1 to 7 inclusive.

LAW

JOSEPH WALTER BINGHAM, ARTHUR MARTIN CATHCART, MARION RICE KIRKWOOD, WILLIAM BROWNLEE OWENS, CHESTER GARFIELD VERNIER, CLARKE BUTLER WHITTIER, Professors.

AUSTIN TAPPAN WRIGHT (University of California), Acting Professor (Autumn Quarter).

LESLIE JAMES AYER (University of Washington), Acting Professor (Winter and Spring Quarters).

CHARLES ERNEST CARPENTER (University of Oregon), GEORGE PURCELL COSTIGAN, JR. (University of California), EVANS HOLBROOK (University of Michigan), FLOYD RUSSELL MECHEM (University of Chicago), Acting Professors (Summer Quarter).

OSCAR KENNEDY CUSHING, HENRIE GRANVILLE HILL, LEONARD SAXTON LYON, Lecturers.

THE LAW SCHOOL

The Law School was established, as a department of the University, in 1893. Its purpose is to provide a thorough legal education for students who are fitted by their maturity and their previous academic training, to pursue professional study under university methods of instruction. The curriculum covers three academic years and constitutes an adequate preparation for the practice of law in any English-speaking jurisdiction. Elective courses in Common Law Pleading, Code Pleading, Evidence, Water Rights, and Mining Law are offered. In all courses some special attention is paid to problems of local law in the Western States.

A comprehensive group of courses in Public Law, of value not only to the law student but to the student who contemplates entering the diplomatic, consular, or other government service, is a feature of the curriculum. A similarly comprehensive group of courses in Commercial Law is provided to meet the needs of students seeking preparation for the various business vocations.

By taking advantage of the four-quarter system, with its opportunities for summer instruction, the Law curriculum may be completed in two and one-fourth calendar years, provided the student has completed three years of academic work at the time of admission.

Only college graduates and students who have completed two years of work in this University, or its equivalent elsewhere, are admitted as regular students. In the discretion of the Faculty, persons who can not meet these requirements, but who are eligible for admission to the University as regular students, and are twenty-three years of age, may be admitted to the Law School as unclassified students, not candidates for a degree.

The Library

The Law Library contains over 30,000 volumes, including complete sets of the English, Irish, Scotch, Australian, and Canadian reports, the reports of all Federal courts, a practically complete set of the reports of the American States, the Australian States, and the Canadian Provinces, the National Reporter system, the standard collections of cases, the standard English and American legal encyclopedias, the principal American, English, and Canadian digests and citators, sets of the leading American, British, Canadian, and Continental legal periodicals, together with a good collection of textbooks. There is also a somewhat complete collection of compiled laws, session laws, and other statutory material, both Federal and State, as well as British, Canadian, and Australian.

The class of 1911, upon graduation, adopted a plan for the purchase, from time to time, of works on Legal History. This collection is known as the "Class of 1911 Memorial Collection on Legal History." Through the efforts of the Stanford Law Association a fund of twenty-five hundred dollars has been raised to endow a collection of law books in memory of the late Charles Andrews Huston for many years Professor of Law and Dean of the Law School.

Through the generosity of Justice McFarland, Justice Melvin, Justice W. A. Sloane, and Justice Frank H. Kerrigan, the Library has received, since 1907, a complete set of the records of the California Supreme

Court, and through the generosity of Justice Sloss, Justice Warren Olney, Jr., Justice C. A. Shurtleff, and Justice Frank H. Kerrigan, a complete set of the records of the District Courts of Appeal.

The University Libraries are also available for use by students of the Law School.

Admission to the Law School

Admission to the professional curriculum in law is granted to students duly enrolled in the University, as follows:

1. To students who have received the degree of Bachelor of Arts, or an equivalent degree, from this University or some other institution of recognized collegiate rank.

2. To students who have received credit for two years of work (90 units) offered by this University, including the work of the Lower Division; or the substantial equivalent of these two years in some other institution of recognized collegiate rank.

3. In the discretion of the Faculty of Law, to students who can not meet the foregoing requirements, but who are eligible for admission to the University as regular students and are twenty-three years of age. Such students are termed "unclassified," and are not eligible for a degree.

The Degree of Bachelor of Arts

Students registered in the Law School will be recommended by the Law Faculty for the degree of Bachelor of Arts in the pre-legal curriculum as follows:

1. Students admitted to the University on or after October 1, 1920, upon the completion of the number of units and grade points required by the University for graduation with the Bachelor's degree, provided that these units shall have included: (*a*) The work of the Lower Division or its substantial equivalent in some other institution; (*b*) studies under the guidance of the Law Faculty covering ninety units. These studies must include the first-year professional law courses. All the other courses are elective, subject to the approval of the Faculty of Law. Additional professional law courses not to exceed twenty-six units may be chosen. As a general rule the elective studies should be mainly selected from the departments of Economics, English, History, Law, Philosophy, and Political Science. Special attention is directed to the course in Roman Law offered in the department of Classical Literature. It will be noted that under this arrangement a student who wishes to pursue more than three years of law studies while in the University may count sixty-five units, substantially one and a half years of professional work, toward his A.B. degree.

2. Students admitted to the University prior to October 1, 1920, may at their option complete the program for the degree of Bachelor of Arts upon which they have begun, or substitute the plan outlined in (1) above.

Candidates may be presented for graduation in January, April, June, and October. The degree will not be conferred upon any person who has not spent at least one academic year in residence at this University and received during that time forty-five units of credit, of which at least thirty-nine must be in professional law courses.

The Degree of Juris Doctor

Students who have received the degree of Bachelor of Arts, or its equivalent, from this University or from some other institution of recognized collegiate rank, and who have satisfactorily completed courses in law aggregating 115 units and who have devoted nine full quarters of time to the study of law (of which at least four quarters must be taken after the conferring of the degree of Bachelor of Arts), and who have otherwise satisfied the requirements of the University and of the Law School, will be granted the degree of Juris Doctor (J.D.). Since a limited number of units of law studies may be counted toward the degree of Bachelor of Arts (see above), the requirement for the degree of Juris Doctor may be satisfied by four years of undergraduate and two years of graduate study. It is insisted, however, that not more than forty of the units of credit in law received by a student while an undergraduate in this or another university shall be counted toward the degree of Juris Doctor; except that a student who has, while an undergraduate, accumulated more than forty units of credit in law, may count toward the degree of Juris Doctor such of the additional units as have not been counted toward his A.B. degree.

Non-Professional Courses of Instruction

[Credit in non-professional courses may be counted toward the A.B. degree, but not toward the J.D. degree.]

1. Introduction to the Study of Law.—Nature, sources, and sanction of law; outline of the historical development of English and American courts and procedure; the content, classification, and determination of rules of law, including a consideration of legal rights and duties, the doctrine of *stare decisis* and the development of some of the more elementary rules of law by combining and comparing decisions. Assigned readings and cases. Prerequisite: 55 units of academic credit.

4 units, spring quarter (Kirkwood)
spring, 130

100. Business Law I.—Contracts: their formation, operation and discharge. Principal and Agent: nature of the relation; power of the agent to bind the principal in contract and tort. This course may not be taken by law students but is open to all other students who have 80 units of credit. The class is limited to one hundred. Bays Cases on Commercial Law.

3 units, winter quarter (Owens)
winter, 95

101. Business Law II.—Sales of goods: the transfer of title; warranties; remedies of buyer and seller on breach of contract or warranty. Negotiable instruments: formal requisites; rights and liabilities arising from negotiation; procedure to fix liability. Prerequisite: Business Law I.

3 units, spring quarter (Owens)
spring, 71

Professional Courses of Instruction

FIRST YEAR

[Completion of all first year courses is required for recommendation for the A.B. degree.]

102. Contracts I.—Mutual assent, including offer and acceptance; contracts under seal; statute of frauds; illegality; joint and several contracts. Williston, Cases on Contracts (2d ed.), and selected cases.
4 units, autumn quarter (WHITTIER)
autumn, 115

103. Contracts II.—Consideration; beneficiaries; assignments. Williston, Cases on Contracts (2d ed.), and selected cases. Prerequisite: Contracts I.
3 units, winter quarter (WHITTIER)
winter, 115

104. Contracts III.—Express conditions; defenses arising from breach of implied conditions, prevention, incapacitation, and repudiation; excuses for non-performance of conditions; anticipatory breach; impossibility; discharge of contracts. Williston, Cases on Contracts (2d ed.), and selected cases. Prerequisites: Contracts I and II.
4 units, spring quarter (WHITTIER)
spring, 91

102–4. Contracts.—A somewhat briefer treatment of the above three courses. Costigan, Cases on Contracts.
8 units, summer quarter (COSTIGAN)
summer, 22

105. Torts I.—Principles of tort liability as developed in the action of trespass; negligence as a basis of liability; common law and statutory duties of care; legal cause; contributory negligence. Ames and Smith, Cases on Torts (Pound's ed.), and selected cases.
5 units, autumn quarter (CATHCART)
autumn, 81

106. Torts II.—Justification and excuse; absolute liability; deceit; defamation; malicious prosecution and abuse of process; interference with social and business relations, unfair competition, combinations, strikes, boycotts. Prerequisite: Torts I, except with the permission of the instructor. Ames and Smith, Cases on Torts (Pound's ed.), and selected cases.
3 units, winter quarter (CATHCART)
winter, 103

107. Criminal Law.—Nature and sources of criminal law; crime as an act; attempts; criminal intent; circumstances affecting illegality of act; specific offenses; crimes against the person, larceny and allied offenses. crimes against the dwelling house, conspiracy. Mikell, Cases on Criminal Law.
6 units, spring quarter (VERNIER)
spring, 105

108. Personal Property.—Possession: Nature, importance and legal effect. Possessory interests arising from: tenancy, bailment, lawful seizure. Rights of a finder. Possession without right. Certain methods of acquiring title to chattels: statutes of limitations; gifts *inter vivos;* accession; confusion, etc. Liens and pledges. Conversion. Warren, Cases on Property.
4 units, autumn quarter (OWENS)
autumn, 66

109. Introduction to the Law of Real Property.—Tenure; estates in land with reference to: quantity, absolute and qualified character, the

time of enjoyment, number and connection of owners, creation and transfer, uses, marital interests. Case book to be announced.
3 units, winter quarter (KIRKWOOD)
winter, 59

110. Agency I.—Nature of relation; appointment; liabilities of principal for agent's torts, contracts, crimes. Liability of agent; parties to writings; undisclosed principal; principal's duties to the agent, including workmen's compensation legislation; agent's duties; delegation; termination; ratification. Prerequisites: Contracts I, Torts I. Wambaugh, Cases on Agency, and selected cases.
5 units, winter quarter (AYER)
winter, 64

SECOND AND THIRD YEAR COURSES

[Courses numbered 201 to 224, inclusive, while intended primarily for graduates, may be elected by students who have completed a substantial part of the first year program, including Contracts I, II, III, and Torts I, II, and who desire to count more than forty units of law toward the A.B. degree. See specific courses for additional prerequisites. For general requirements for admission to courses 225 to 249, and 250 and above, see statements at the beginning of these groups.]

201. Common Law Pleading.—This course is intended (*a*) to provide a sufficient training in pleading for practice in a common law jurisdiction, (*b*) to furnish an adequate foundation for the study of code pleading, (*c*) to assist the student in the intelligent study of cases. It includes a study of forms of action, necessary allegations, methods of pleading defenses, defects in pleadings with methods of objecting to them and their cure, dilatory objections, cross demands. Prerequisites: Two quarters of Contracts, Torts, Personal Property, and Introduction to Real Property. Whittier and Morgan, Cases on Common Law Pleading.
4 units (WHITTIER)

202. Equity.—Development and nature of equity jurisdiction, specific performance of contracts. Ames, Cases on Equity Jurisdiction.
4 units, autumn quarter (KIRKWOOD)
autumn, 66

203. Persons and Domestic Relations.—Infants; period of infancy; infants' contracts and conveyances, torts, and crimes. Husband and wife; rights of husband as to wife's property; rights of each as to earnings, services, and society of the other; husband's interest in damages for tort to wife; husband's liability for torts or contracts of wife; husband's duty to support wife and wife's authority to bind husband by her contracts; married women's contracts, conveyances, and devises; estoppel of married women; liability of married women for torts and responsibility for crimes; contracts, conveyances, and suits between husband and wife; husband's right to custody of wife. Marriage: promise to marry and breach; marriage as a contract or relation; annulment; divorce; separation. Woodruff, Cases on Domestic Relations (3d ed.).
4 units, spring quarter (VERNIER)
spring, 47

204. Sales.—Subject-matter of the contract; transfer of property and title; destruction of the goods and risk of loss; obligations of seller and buyer; rights of unpaid seller against the goods, remedies of the seller

on the contract; remedies of the buyer on the contract; Statute of Frauds. Woodward, Cases on Sales.
6 units, autumn quarter (VERNIER)
autumn, 40

205. Landlord and Tenant.—Creation of relationship; duration of tenant's interest, remedies of landlord for non-performance of tenant's obligations, remedies of tenant against landlord, covenants running with the land as between landlord and tenant, rights and duties of landlord and tenant with respect to third persons. Prerequisite: Law 109, Introduction to Real Property. Selected cases.
3 units, spring quarter (KIRKWOOD)
spring, 29

206. Water Rights.—An intensive study of water rights in the Western States. Extent of riparian rights and liberties; the law of prior appropriation; relative priorities of riparian and non-riparian rights and liberties of use; extinguishment of riparian rights; rights in diffused and underground waters; rights in interstate streams; federal and state powers of control. Prerequisites: Law 109, Introduction to Real Property; Law 202, Equity. Bingham's Cases on Water Rights.
4 units (BINGHAM)

207. Mining Law.—A course on mining titles under the Federal mining acts, with especial reference to mining rights in the Western States and Alaska. Prerequisites: Law 109, Introduction to Real Property; Law 202, Equity. Costigan, Cases on Mining Law.
4 units (BINGHAM)

208. Bailments and Carriers.—Bailments in general, including bailments for hire, for services to be performed, and for hired use. Special classes of bailments involving ordinary liability: pledges; warehousemen. Special classes of bailments involving exceptional liability; innkeepers; common carriers of goods; common carriers of passengers. Green, Cases on Carriers.
4 units

209. Public Utilities.—The nature, rights, and duties of public service callings and businesses under the common law: railroads and canals; telephone and telegraph; gas, water, irrigation and other public utilities. The legislative and administrative regulation of public utilities under the police power, especially rate regulation. The Interstate Commerce Act: scope of commerce regulated by the Act; duties of carriers under the Act. Burdick, Cases on Public Service, and selected cases.
4 units, summer quarter, 2d half [8 recitations weekly] (CATHCART)
summer, 35

210. Trade Regulation.—Contracts and combinations in restraint of trade. Contracts accompanying the sale of a business or of property; exclusive contracts of sale and purchase; contracts of buyers to keep up prices on resale. Disparagement of goods and unfair competition. Combinations and competitive methods of labor units, of trade or manufacturing units, and of public service units. Modern statutes regulating trade, especially the Sherman Anti-Trust Act, the Federal Trade Commission Act, and the Clayton Act. No law credit if taken before Contracts and Torts. Oliphant, Cases on Trade Regulation.
4 units, spring quarter (CATHCART)
spring, 11

211. Damages.—Respective functions of court and jury in estimating damages; exemplary, liquidated, nominal, direct, and consequential damages; avoidable consequences; counsel fees; certainty, compensation, damages for non-pecuniary injuries; value; interest; and damages in certain actions of tort and contract. Beale, Cases on Damages (2d ed.).
3 units, spring quarter (AYER)
spring, 17

212. Quasi-Contracts.—Origin and nature of quasi-contracts. Benefits conferred in misreliance on right or duty; general principles; misreliance resulting from mistake of law; misreliance on invalid contract, on contract unenforceable because of Statute of Frauds, on illegal contract, on contract impossible of performance, on contract unenforceable because of breach, on supposed requirement of valid contract, on non-contract obligation, on ownership of property. Benefits conferred through dutiful intervention in another's affairs. Benefits conferred under constraint; constraint of duress, of legal proceedings, of tax or assessment. Action for restitution as alternative remedy for breach of contract and for tort. Thurston, Cases on Quasi-Contracts.
4 units, summer quarter, 1st half [8 recitations weekly] (CARPENTER)
summer, 19

213. Insurance.—Marine, fire, and life insurance. Insurable interest in various kinds of policies; concealments; misrepresentations; warranties and other matters affecting the validity of the contract; amount of recovery; subrogation; waiver, estoppel, election; powers of agents; assignees and beneficiaries.
4 units

214. Wills.—Devolution of property of a decedent by intestate succession. The nature of wills and testaments. Probate and its effect. Testamentary capacity. Testamentary intent. Effect of fraud, undue influence, or mistake on the validity of a will. Formalities essential to execution of a valid will. Incorporation by reference. Nullification of wills by (1) revocation; (2) ademption or lapse of legacies or devises; (3) by other circumstances. Republication of wills. Prerequisites: Law 109, Introduction to Property; Law 202, Equity. Gray's Cases on Property, Vol. IV (2d ed.), and selected cases.
4 units, autumn quarter (BINGHAM)
autumn, 23

215. Admiralty.—Those principles and rules peculiar to admiralty and maritime law, with particular reference to the United States, involving the application of rules of law to transactions upon the sea and navigable waters and including (1) the extent and nature of the jurisdiction of Federal and State courts in applying such rules; (2) the nature of the substantive maritime law of the United States; (3) the maritime lien or right *in rem,* its nature and when it exists; (4) the substantive law of salvage, general average, and with regard to the rights of seamen; (5) the right under Federal Statutes of a shipowner to limit his liability to the value of his ship, or by contract to avoid liability for the loss or injury of goods carried by sea; and (6) the admiralty rule for the division of damages in cases of mutual fault. Selected cases.
4 units (————)

216. Public International Law.—Nature of International Law; relation to Municipal Law. International relations in time of peace; definition, recognition, and classification of states; jurisdiction on land and

on the high seas; acquisition and transfer of jurisdiction; non-belligerent settlement of international controversies. International relations as modified by war; effect of war as between enemies; relations between belligerents and neutrals. Open to students in other departments on petition. Scott's Cases on International Law.

4 units, winter quarter (BINGHAM)
winter, 30

217. Jurisprudence.—Elements, nature, and sources of law; object of law; rights; analysis of a right; acts, facts, things, persons; duties, obligations, wrongs; classification of law; application of law. Holland, Elements of Jurisprudence (12th ed.), and assigned readings.

3 units, summer quarter (MECHEM)
summer, 16

[Courses numbered 225 to 249, inclusive, may be taken by undergraduate students only in exceptional instances and upon petition in each case.]

225. Constitutional Law I.—Introductory topics: nature of written constitutions and function of the judiciary in enforcing them; separation and delegation of powers; federal government, the nation and the states; the District of Columbia, the territories, the insular possessions and kindred topics. The thirteenth amendment: slavery and involuntary servitude. The fourteenth amendment: privileges and immunities of citizens; due process and equal protection of law; procedure; police power; taxation. The fifteenth and eighteenth amendments. No law credit if taken before Contracts and Torts. Wambaugh, Cases on Constitutional Law, and selected cases.

3 units, autumn quarter (CATHCART)
autumn, 40

226. Constitutional Law II.—The contract clause; ex post facto laws; the first ten amendments; express provisions on state and national taxation; money; the commerce clause and kindred topics. No law credit if taken before Contracts and Torts. Wambaugh, Cases on Constitutional Law, and selected cases.

3 units, winter quarter (CATHCART)
winter, 33

227. Administrative Law and Public Officers.—Administrative regulations; jurisdiction, discretion, adjudication; enforcement of orders; habeas corpus; mandamus; certiorari; equitable jurisdiction in public law. Freund, Cases on Administrative Law.

4 units

228. Bankruptcy.—Jurisdiction of the United States and the several States; who may be a bankrupt; who may be petitioning creditors; acts of bankruptcy; what property passes to the trustee; provable claims; duties and powers of the bankrupt and his trustee; protection, exemptions, and discharge. Williston, Cases on Bankruptcy.

4 units

229. Special Equitable Remedies.—Bills of interpleader; bills of peace; bills quia timet; cancellation of contracts, removal of clouds on title; perpetuation of testimony, bills to secure rights of future enjoyment; bills of account. Ames, Cases on Equity Jurisdiction, Vols. I and II.

2 units, autumn quarter (KIRKWOOD)

230. Title to Land.—I. Original titles founded on possession, prescription, and accretion. II. Modern conveyancing: execution of deeds, description of the property conveyed, creation of easements by implica-

tion, covenants for title, estoppel by deed, fraudulent conveyances, recording. Aigler, Cases on Titles to Real Property.
4 units, winter quarter (KIRKWOOD)
winter, 42

231. Rights in the Land of Another.—Natural rights, profits, easements, covenants running with the land, public rights, franchises, rents. Bigelow, Cases on Rights in Land.
4 units, summer quarter, 1st half [8 recitations weekly] (KIRKWOOD)
summer, 37

232. Future Interests.—Vested and executory interests; construction of limitations of future interests; powers; the rule against perpetuities; conditions; restraints on alienation. Kales, Cases on Future Interests.
5 units (BINGHAM)

233. Trusts.—The Anglo-American system of uses and trusts. Nature of a trust; other sorts of interests and relations distinguished; the creation, transfer, and extinguishment of trust interests, express, resulting, and constructive; validity of trusts; effect of statutes; charitable trusts; priorities and relative validity of competing equities; importance of the legal title to one claiming adversely to a trust or other equitable interest; remedies of creditors against the trust property; duties of the trustee. Prerequisite: Law 202, Equity. Scott, Cases on Trusts.
6 units, spring quarter (BINGHAM)
spring, 42

234. Partnership.—Nature of a partnership, its purposes and members; creation of partnerships; nature of partner's interest; firm name and good will; mutual rights and duties of partners; actions between partners, at law and in equity; powers of partners; liability for acts of partners in contract and tort; general liability of partners; dissolution and notice; consequences of dissolution; dissolution agreements respecting debts; distribution of assets to creditors, and between partners; limited partnerships. Gilmore, Cases on Partnership.
4 units, summer quarter, 2d half [8 recitations weekly] (OWENS)
summer, 31

235. Mortgages.—All forms of mortgage security, both real and chattel; essential elements of legal and equitable mortgages; legal and equitable rights, powers and remedies of mortgagor and mortgagee with respect to title, possession, rents and profits, waste, collateral agreements, foreclosure, redemption; priorities; marshaling; extension of mortgages; assignment of mortgages; discharge of mortgages. Case book to be announced.
3 units, spring quarter (AYER)
spring, 32

236. Bills and Notes.—Negotiability; form and inception; form of bill and of note, acceptance, delivery, consideration; negotiation; transfer, holder in due course; liability of parties, maker and acceptor, drawer and indorser, transferor; discharge; effect of the Negotiable Instruments Law. Colson's Huffcut's Cases on Bills and Notes.
6 units, winter quarter (VERNIER)
winter, 35

237. Suretyship.—Personal suretyship compared with real suretyship (mortgages, pledges, liens, etc.); suretyship obligations compared with insurance and indemnity obligations; guaranty and other forms of suretyship in relation to the Statute of Frauds; suretyship in transac-

tions involving negotiable instruments; fidelity contracts and judicial bonds; surety's defenses due to original defects in his obligation or to its subsequent discharge; surety's right to subrogation, indemnity, contribution, or exoneration; creditor's right to surety's securities. Ames, Cases on Suretyship.

3 units, winter quarter (AYER)
winter, 26

238. Municipal Corporations.—Nature; creation, alteration, and dissolution; internal organization; powers; liabilities on contract and for torts; remedies. Beale, Cases on Municipal Corporations, and selected California cases.

4 units, summer quarter, 1st half [8 recitations weekly] (HOLBROOK)
summer, 23

239. Evidence A.—This course deals with certain procedural and substantive law topics commonly considered in connection with evidence though not strictly a part of that subject. They are: judicial notice; functions of court and jury; presumptions; burden of proof; the parol evidence rule including construction of instruments. Thayer, Cases on Evidence.

3 units, spring quarter (WHITTIER)
spring, 26

[Courses numbered 250 and above are intended primarily for law graduates in their last year of study.]

250. Private International Law I (Conflict of Laws).—A study of the influence which considerations of the jurisdiction of a state and considerations of foreign law have upon the decisions of courts in cases involving events or things or persons under foreign jurisdiction. The study includes particularly questions of the jurisdiction of states and of courts, of the effects of foreign judgments and decrees, of legal domicile, of divorce and of actions for foreign wrongs. Beale, Cases on Conflict of Laws (larger edition).

4 units, autumn quarter (BINGHAM)
autumn, 15

251. Private International Law II (Conflict of Laws).—A continuation of Law 250. The following topics are treated: property interests, decedent's estates, torts, legal capacity, marriage, marital interests, and contracts. Beale, Cases on Conflict of Laws (larger edition).

3 units, winter quarter (BINGHAM)
winter, 9

252. Private Corporations.—The nature of a corporation; promotion of corporations; corporate powers; corporate liability for torts and crimes; unauthorized corporate action, including doctrines of *de facto* incorporations, and *ultra vires* acts; officers, stockholders, and creditors of corporations; reorganization of corporations. Richards, Cases on Corporations (summer); Warren, Cases on Corporations (2d ed.) (autumn).

4 units, autumn quarter (WRIGHT)
6 units, summer quarter (MECHEM)
autumn, 30; summer, 21

253. Code Pleading.—Actions: splitting and consolidation of demands; one form of action; special proceedings. The complaint: facts constituting the cause of action; demand for judgment; joinder of causes of action. Demurrers: admission by demurrer; grounds of demurrer; effect on prior pleadings. The answer: general and specific denials; new

matter; several defenses. The reply: when necessary; new assignment; departure. Hinton, Cases on Code Pleading (2d ed.).
4 units, spring quarter (CATHCART)
spring, 35

254. Evidence I.—Introductory topics. Witnesses: competency; privilege; examination; impeachment; rehabilitation. Certain rules of exclusion; conjectural evidence; character evidence; hearsay. Thayer, Cases on Evidence.
3 units, autumn quarter (WHITTIER)
autumn, 29

255. Evidence II.—The exceptions to the hearsay rule; opinion evidence; real evidence; proof of execution of writings; the "best evidence" rule. Prerequisite: Evidence I. Thayer, Cases on Evidence.
3 units, winter quarter (WHITTIER)
winter, 28

Practice.—In this course consideration is given to the procedural problems confronting the lawyer in the commencement and prosecution of a civil action, omitting the subject of pleading which is taught in other courses. The problems are studied as nearly as possible in the order in which they arise in an action. In the third quarter a court is organized and students are given practice in the institution and conduct of a civil action, including preparation and service of all writs, pleadings, motions, etc.; argument on law and motion matters, setting case for trial, and trial of an actual case before a jury chosen from members of the first and second year classes; appeal, preparation of record and briefs on appeal, and argument on appeal. Also probate and administration proceedings in an estate are conducted.

256. *Practice I.*—Necessity for a cause of action; statutes of limitation; parties to action; venue; jurisdiction; process. Case book to be announced.
3 units, autumn quarter (OWENS)
autumn, 37

257. *Practice II.*—Appearance; provisional remedies; motions; trial; verdict; judgment. Prerequisite: Practice I. Case book to be announced.
4 units, winter quarter (OWENS)
winter, 29

258. *Practice III.*—Effect of judgments on subsequent proceedings; proceedings subsequent to trial; execution; costs; appeal; probate and administration proceedings. Prerequisites: Practice I and II. Case book to be announced.
4 units, spring quarter (OWENS)
spring, 24

259. Problems of Judicial Administration.—The difficulties of judicial organization and procedure with the remedies adopted or proposed. Special topics such as: sources of procedural law, statutes and rules of court; selection and tenture of judges; court organization; special courts; arbitration and conciliation; the bar; legal aid; costs; simplification of pleadings; rules of evidence; the jury; appeals; uniformity. Primarily for graduate students, but open to well prepared undergraduates in their fourth year upon obtaining permission from the instructor. Should be preceded when possible by the courses in practice, pleading, and evidence. May not be counted toward a degree in law unless the student previously has obtained credit in Contracts I, II, III, and Torts I, II.
4 units (WHITTIER)

LIBRARY

George Thomas Clark, Librarian.
Charles V. Park, Assistant Librarian.
Helen Binninger Sutliff, Chief Cataloguer.
Alice Newman Hays, Reference Librarian.
Elizabeth Hadden, Chief Order Division.
Louise Ophüls, Medical Librarian.
Nina Almond, Hoover War Librarian.
Minna Stillman, Document Librarian.
Frances E. Sheldon, Law Librarian.

The Library is open during term time on week days from 8 a. m. to 10 p. m., except on Saturdays, when it is closed at 5 p. m. The Sunday hours are from 2 p. m. to 6 p. m. During vacations the hours are from 8:30 a. m. to 4:30 p. m.. Saturdays to 12:30 p. m. The shelves are open to members of the faculty, and, on recommendation of their instructors, to students engaged in advanced work. Books, other than works of reference, not required for class use or otherwise restricted, are available for circulation under prescribed rules to those entitled to the privileges of the Library. A handbook giving information relative to the Library and how to use it has been published, and may be obtained upon request.

The Library is available for use by all registered students without the payment of additional fees. Visitors regularly attending lecture courses or other university exercises; but not registered, are entitled to the privileges of the Library upon payment of a fee of $1.25 per quarter.

Including the departments of law and medicine, the Library contains upward of 350,000 volumes. The income of the Jane Lathrop Stanford Jewel Fund, certain other special funds, and fees provide for its maintenance and growth.

The Library building is well adapted to meet the needs of advanced and graduate students. It contains nine rooms in which seminar classes may be held; and one large room which serves as a reading room for students in seminar classes. Tables on each floor of the stack make it possible for any graduate student to work in easy reach of the material in his field.

Two collections of especial interest to research workers in the fields of history and economics will be found in the Hoover War Library and the Document room, both on the first floor.

The Document division brings together the Library's collection of city, state, and federal documents. It is especially strong in the publications of the United States, Great Britain, Canada, and Australia. The publications of other countries are being added as fast as circumstances permit. The collection now numbers 40,000 volumes, besides much unbound material.

The Hoover War Library contains some 100,000 printed and manuscript items on all aspects of the Great War, 1914–18, and for all nations, whether warring or neutral. It is rich in government documents, in delegation propaganda at the peace conferences, in files of the

publications of social and political societies, and in newspapers. A special reading room facilitates the use of the collection.

Other noteworthy special collections are:

THE JORDAN LIBRARY OF ZOOLOGY.—A collection consisting largely of works on ichthyology, to a considerable extent made up of a vast number of author's separates, which have been accumulated by Chancellor JORDAN, bound in convenient form, indexed, and catalogued. The more voluminous publications, such as the works of Cuvier, Lacépède, Bloch, Bleeker, Günther, and others, are well represented. These, supplemented by the proceedings of various societies and institutions, make a collection of books of great value to advanced students and investigators in ichthyology. The library is conveniently arranged, in Jordan Hall, near the laboratories and collections.

THE BARBARA JORDAN LIBRARY OF BIRDS.—A memorial collection presented by Chancellor JORDAN, to which frequent additions are made. While some of the older texts are not represented, it is a good working library of ornithology and contains the principal modern works.

THE BRANNER GEOLOGICAL LIBRARY.—The geological library (room 333) is the result of twenty-five years of painstaking acquisition by Dr. JOHN CASPER BRANNER. It includes a vast wealth of material relating to geology, paleontology, mineralogy, geography, mining and metallurgy. It is especially well equipped with files of journals and the transactions of scientific societies, together with a large collection of state and government reports.

THE HOPKINS RAILWAY LIBRARY.—A collection of approximately 10,000 volumes and pamphlets dealing with the subject of transportation. In 1892 Mr. TIMOTHY HOPKINS, of San Francisco, presented to the University his private library on railroads, consisting of about 2,000 books, personally providing for its maintenance and growth for many years. The collection is general in scope, intended to embrace all subjects touching on the building, maintenance, and operation of railways. It is especially rich in state and government reports, as well as in reports of individual railroads both in the United States and Europe, with much material pertaining to their history.

THE LAW LIBRARY.—A library of about 30,000 volumes, selected with care and adequate for the study of English and American law. It contains practically complete sets of the reports of the courts of England, Scotland, Ireland, Canada, the United States and the several states, together with a valuable collection of statutes, treatises, and periodicals.

THE LANE MEDICAL LIBRARY.—Founded by the directors of Cooper Medical College in accordance with the bequest of Mrs. L. C. LANE. The library contains about 50,000 volumes, and is particularly rich in its collection of medical and allied periodicals. The leading domestic and foreign journals are currently received. The library building, erected in 1912, is opposite the other medical buildings, on the corner of Sacramento and Webster streets, San Francisco.

Two noteworthy special collections are the Barkan library of ophthalmology and oto-laryngology, endowed by Dr. A. BARKAN, professor emeritus of ophthalmology, and the new library on the history of medicine, supported by Stanford University and Dr. A. BARKAN conjointly. To date this library contains about 5,000 volumes.

MATHEMATICS

ROBERT EDGAR ALLARDICE, RUFUS LOT GREEN, HANS FREDERIK BLICHFELDT, Professors.
[WILLIAM ALBERT MANNING, Professor of Applied Mathematics.]
JAMES T. MATTHEWS, Acting Assistant Professor (Summer Quarter).
BEATRICE FENNER, Assistant in Instruction.

The courses in this department have been arranged to meet the wants of two classes of students—students whose major subject is Mathematics, and students, who, while taking their major in some other department, desire to include some mathematics in their course. Students in Engineering are provided for in the Department of Applied Mathematics.

Students intending to major in Mathematics should take courses 10 and 11 during the first two years, and also courses 1 and 2 if they have not had trigonometry and solid geometry at the high school. Course 140 should be taken at the beginning of the junior year; and, for the Bachelor's degree, four other courses (including differential equations) are required, to be selected from the courses following number 140.

Students whose major subject is Mathematics are recommended to begin the study of either French or of German in their freshman year.

Students who desire to take one or more years in Mathematics as a part of a liberal training are recommended to begin their work in this department with one or more of the courses 1, 2, 10, and 20.

THE TEACHER'S RECOMMENDATION.—For a minor in Mathematics the following courses are required: 1, 2, 10, 11, 200*a*; for a major, course 140 in addition to these courses.

1. Trigonometry.—Elementary courses with applications involving logarithmic calculation.
4 units, autumn, *winter, and *summer quarters (FENNER, MATTHEWS) (autumn) TWThF 9, 11; (winter) TWThF 9
autumn, 35; winter, 20; summer, 21

2. Solid Geometry.—Elementary course.
3 units, winter quarter (FENNER) MWF 11
winter, 4

10. Algebra.—Fundamental laws degree, symmetry, indeterminate coefficients, remainder theorem, factors, introduction to theory of equations. Presupposes entrance credit in elementary algebra.
5 units, autumn, *winter, *spring, and *summer quarters (GREEN, MATTHEWS) MTWThF 9
autumn, 18; winter, 7; spring, 8; summer, 7

11. Coördinate Geometry.—An elementary course in the analytic geometry of the conic sections. Presupposes course 10.
5 units, autumn and *summer quarters (GREEN, MANNING) MTWThF 9
autumn, 4; summer, 5

20. General Course.—An elementary survey of trigonometry, coördinate geometry, calculus, and statistics, sufficient to cover the ordinary needs of science majors, as well as of other students who cannot afford the time required for the separate courses, but who desire an understanding of the fundamental principles involved and an ability to put these prin-

ciples to practical use. Presupposes elementary algebra and plane geometry.
5 units, autumn, winter, and spring quarters (BLICHFELDT) MTWThF 9
autumn, 22; winter, 12; spring, 9

120. Mathematical Theory of Investments.—An introductory course, presupposing a college course in algebra or two years of algebra in the high school; also, ability to use logarithms.
5 units, winter quarter (GREEN) MTWThF 8
winter, 11

121. Life Insurance.—An introduction to actuarial theory. Presupposes course 120.
5 units, spring quarter (GREEN) MTWThF 8
spring, 5

140. Differential and Integral Calculus.—An elementary course.
5 units, autumn and spring quarters (ALLARDICE) MTWThF 9
autumn, 9; spring, 7

141. Advanced Calculus.—A continuation of course 140.
5 units, autumn quarter (ALLARDICE) MTWThF 9
autumn, 12

150. Differential Equations.
5 units, winter quarter (BLICHFELDT) MTWThF 10
winter, 16

151. Vector Analysis.
5 units, autumn quarter (BLICHFELDT)
autumn, 3

155. Projective Geometry.
5 units, winter quarter (ALLARDICE) MTWThF 11
winter, 6

160. Advanced Algebra.
4 units, winter quarter (BLICHFELDT) TWThF 10

200a. Plane Geometry.
5 units, autumn quarter (ALLARDICE) MTWThF 9
autumn, 14

200b. Teacher's Course in Algebra.
5 units, spring quarter (GREEN) MTWThF 8

200c. Non-Euclidean Geometry.
4 units, spring quarter (BLICHFELDT) TWThF 10

205. Theory of Functions.
5 units, spring quarter (ALLARDICE) MTWThF 11
spring, 13

206. Complex Variables.
4 units, summer quarter (MANNING) TWThF 11
summer, 7

210. Selected Readings.
(ALLARDICE, GREEN, BLICHFELDT) By arrangement
autumn, 3; winter, 5; spring, 6

215. Thesis.
spring quarter (ALLARDICE)
spring, 5

MEDICINE

WILLIAM OPHÜLS, Dean.
ALBION WALTER HEWLETT, Secretary of the Medical Faculty.

Admission to the Medical School

(1) Graduation from high school (or its equivalent), comprising fifteen recommended units, as defined by the University for admission to the freshman class. (*Special students* are not admitted to registration in Medicine.)

(2) Three full years of college work, totaling 135 units (90 semester units), of a grade equivalent to that of Stanford University (counting as many grade points as there are units). The required work in these three years is that laid down by the Association of American Medical Colleges in Physics, Chemistry, Biology, and English, together with a reading knowledge of either French or German, and additional work in Chemistry as indicated below.

(3) In addition to the A. A. M. C. minimum in Chemistry, the University requires Qualitative and Quantitative Analysis and Organic Chemistry.

(4) In Biological Science the University requires 15 quarter units, or 10 semester units, made up of courses in General Zoology (or General Biology), Comparative Anatomy of the Vertebrates, and General Vertebrate Embryology, substantially equivalent to the courses in those subjects given at Stanford University as indicated below.

No conditions are permitted. Candidates for admission who in June, 1924, will have completed the above requirements except for a few units in collegiate subjects should plan to make up these deficiencies in full by attendance at summer sessions during the summer of 1924.

In practice the above requirements as applied to the pre-medical courses of Stanford University students work out about as follows:

CHEMISTRY

Elementary Inorganic Chemistry (course 1), 3 units.
Elementary Inorganic Laboratory (course 2), 3 units.
General Inorganic Chemistry (course 3), 3 units.
General Inorganic Laboratory (course 4), 3 units.
Qualitative Analysis (course 20), 6 units.
Quantitative Analysis (courses 113, 114), 5 units.
Organic Chemistry (course 127), 5 units.

Students with entrance credit in Chemistry take courses 7 and 9 instead of 1, 2, and 3.

[Total, 28 (or 23) quarter units; 18⅔ (or 16) semester units.]

PHYSICS

Mechanics and Heat (course 1), 5 units.
Electricity (course 2), 4 units.
Lenses (course 3), 1 unit.
Modern Physics (course 20), 3 units.

[Total, 13 quarter units (8⅔ semester units).]

BIOLOGY

General Zoology (course 1 in Zoology), 5 units (or General Biology 1, 2, and 3), 9 units.
Comparative Anatomy of the Vertebrates (course 104 in Zoology), 5 units.
Vertebrate Embryology (course 106 in Zoology), 5 units.

[Total, 15 quarter units (10 semester units).]

ENGLISH

Nine quarter units (6 semester units).

FRENCH OR GERMAN READING KNOWLEDGE

This varies somewhat with the ability of the student, but implies at least the equivalent of a year's work of 15 (quarter) units.

(Applicants for admission to the Medical School, or for advanced standing in Medicine should communicate with The Registrar, Stanford University, California; those desiring information concerning the upper classes of the Medical School (*i. e.,* from the sixth to the twelfth quarters), should communicate with The Dean, Stanford University Medical School, 2398 Sacramento Street, San Francisco, Cal.)

The Curriculum in Medicine

The required period of study for the degree of Doctor of Medicine is twelve quarters plus the interne year. The work of the first five quarters is given at Stanford University and is devoted to anatomy, bacteriology, chemistry, embryology, histology, neurology, experimental pathology, physical diagnosis, and physiology. The next seven quarters are devoted to work in the pharmacological, pathological, and clinic laboratories, and in the hospital wards and the out-patient department in San Francisco. The last year is spent in hospital work.

In order to correlate the work of some of the departments and to facilitate research in others, all courses in Medicine, except those in anatomy, bacteriology, chemistry, and physiology, are given in San Francisco. By reducing the number of required hours to approximately the number decided upon by the Association of American Medical Colleges, the student's opportunity for taking optional and elective courses has been increased and time obtained for thesis work.

Fees

The tuition fee for all students (graduate and undergraduate) in the School of Medicine on or after October 1, 1921, is $85 per quarter; the guild fee is $2 per quarter. Medical students desiring membership in the Stanford Union, Women's Clubhouse, or Associated Students, or the use of the gymnasia and athletic grounds, will pay the usual fees designated for these purposes. A deposit to cover breakage or loss of apparatus and materials may be required in any department, such deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus. The total deposits for this purpose may vary from $10 to $20 per annum. (For graduate students registering in Medicine before October, 1921, the tuition fee is $50 per quarter and the incidental fee $13 per quarter (in San Francisco, $12). For undergraduates registering in Medicine before October, 1921, the tuition fee is $50 per quarter, the incidental fee $20 per quarter.)

Drafts and checks should be drawn for the exact amount to the order of Stanford University Medical School, as no change can be returned to students on checks or drafts.

I. ANATOMY

ARTHUR WILLIAM MEYER, FRANK MACE MCFARLAND, Professors.
CHARLES HASKELL DANFORTH, CLARA S. STOLTENBERG, Associate Professors.
HERLWYN R. GREEN, Teaching Assistant.
EMILY M. BARTLETT, Assistant.

[For outline of courses see under Anatomy, p. 132.]

II. BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

WILFRED HAMILTON MANWARING, Professor.
EDWIN WILLIAM SCHULTZ, WILLIAM LUDLOW HOLMAN, Associate Professor.

[For outline of courses see under Bacteriology and Experimental Pathology, p. 136]

III. CHEMISTRY

ROBERT ECKLES SWAIN, Professor.

Biochemistry.—(See course 141, Department of Chemistry.)
5 units (55 hours), autumn and *summer quarters (SWAIN) MTWThF 8

Biochemistry.—A laboratory course. Should be preceded by courses 20 and *d* Qualitative Analysis); 22 and *g* (Quantitative Analysis), and 10 (Organic Chemistry) in the Department of Chemistry. (See Chemistry 142.)
4 units (132 hours), autumn and *summer quarters (SWAIN)
5 afternoons, 1:05–4:05

[Students enrolled as Medical students will be required to deposit $15 breakage fee for course 142; other University students will pay the usual fee of $30.]

IV. HYGIENE AND PUBLIC HEALTH

WILLIAM OPHÜLS, Acting Executive.
MORTON RAYMOND GIBBONS, Lecturer on Medical Aspects of Insurance.

201. Hygiene.—This course covers the usual field of Hygiene and Public Health. The practicing physician's duties and opportunities in the field of preventive medicine are emphasized. (Three quarters required.)
1 hour (11 hours), spring quarter junior year; 1 hour (22 hours), autumn and winter quarters senior year (OPHÜLS, DICKSON) (R 311) F 3:30–4:30
autumn, 25; winter, 24; spring, 23

202. Military Medicine.—Lectures on Military Medicine, covering the subjects of camp sanitation, transmissible diseases, organization of Medical Corps, health of the soldier, etc. Given by members of the U. S. Army Medical Corps.
1 hour (11 hours), winter quarter (R 311) W 3:30–4:30
winter, 24

203. Industrial Accident Insurance.—Lectures on medicine and surgery in their relation to industrial accidents, dealing with medical and insurance aspects of Compensation Law. Given by members of the Medical School staff in conjunction with certain members of the Industrial Accident Commission of the State of California.
1 hour (11 hours), spring quarter (M. R. GIBBONS, and others)
(R 311) M 4:30–5:30 *spring, 24*

204. Life Insurance.—Lectures on medical aspects of life insurance.
1 hour (11 hours), autumn quarter (M. R. Gibbons, and others)
autumn, 25 (R 311) M 4:00–5:00

V. MEDICINE

Albion Walter Hewlett (Executive), Thomas Addis, Professors.
Harry Everett Alderson, William Fitch Cheney, Harold Phillips Hill, Walter Frank Schaller, Clinical Professors.
Ernest Charles Dickson, Harold Kniest Faber, Associate Professors.
Walter Whitney Boardman, William R. P. Clark, Alfred Cummings Reed, Julian Wolfsohn, Henry Herbert Yerington, Associate Clinical Professors.
William Edward Chamberlain, Henry George Mehrtens, Assistant Professors.
George de Forest Barnett, Millicent Mary Cosgrave, Thomas George Inman, Mary H. Layman, Harry Reeves Oliver, Arthur Aloysius O'Neill, Philip Hale Pierson, Assistant Clinical Professors.
Robert Reid Newell, Harry Alphonso Wyckoff, Instructors.
Clement Harrise Arnold, Wallace H. Barnes, Joseph H. Catton, James Arthur Cutting, Norbert J. Gottbrath, Maude Noble Haven, Harvey S. Hunsberger, Thomas Henshaw Kelly, William Kenney, John J. Kingston, Frank A. Kinslow, Frederick Walter Kroll, Peter Harrison Luttrell, Mary Jones Mentzer, Jay Marion Read, Joseph Abraham Sampson, Hermann Schussler, Jr., Harry Spiro, Clinical Instructors.
George Henry Becker, Martin Benzinger, Harry Carson Coe, W. Edward Glaeser, Joel H. Hansen, James C. Parrott, Guy D. Schoonmaker, Dwight E. Shepardson, Edward F. Stadtherr, Louise Everett Taber, Assistants.
Adelaide Brown, Lecturer on Child Hygiene.
Guy Stevens Farrington, Lecturer on Speech Defects.
Arthur John Ritter, Lecturer on Mental Deficiency.

Subdivisions

PEDIATRICS	JURISPRUDENCE	TROPICAL MEDICINE
NEURO-PSYCHIATRY	PHYSIOTHERAPY	TUBERCULOSIS
RADIOLOGY	CUTANEOUS MEDICINE AND SYPHILIS	

Instruction in the Department of Medicine normally commences in the fifth quarter of medical registration, at which time the course in Physical Diagnosis is started at Palo Alto. During the sixth quarter this course is finished in San Francisco, and a course in Clinical Pathology (Medicine 202) is also given. These courses are prerequisite for most other courses in this department.

Before beginning the interne year, students are required: (1) to have completed the prescribed courses, and (2) to have passed a final examination in Internal Medicine, Neurology, Diseases of Children, and Cutaneous Medicine.

Deviations from this general plan of work will be permitted only after obtaining permission of the instructors involved and of the Executive Head of the Department of Medicine.

Courses for Second-Year Medical Students

201. Physical Diagnosis.—An introductory course in physical diagnosis is offered during the winter quarter at Stanford University, based mainly upon a study of normal subjects. A continuation of this course based mainly upon the study of those presenting physical abnormalities is offered during the spring quarter in San Francisco.

4 hours, winter quarter at Stanford University; 4 hours, spring quarter at San Francisco (88 hours in all) (Stanford, Barnett; San Francisco, Barnes, Read) TTh 10:30–11:30 (Lane Hall); S 8:30–10:30 (SFH)
winter, 43; spring, 43

202. Clinical Pathology.—Lectures and laboratory work. The usual methods of examining the urine, blood, sputum, gastric contents, feces, and spinal fluid are carried out by the student and the significance of abnormalities noted.

4½ hours (49 hours), spring quarter, in San Francisco (Wyckoff) (R 312b) MF 9:30–11, S 11–12:30
spring, 42

For Third-Year Medical Students

203. Diseases of the Thoracic Organs.—Clinics and recitations. Given to sections of half the class.

3 hours (33 hours), autumn or winter quarters (Dickson, Spiro) (Lane Hall) MWF 10:30–11:30
autumn, 12; winter, 11

204. Diseases of the Digestive Tract.—Clinics and recitations. Given to sections of half the class.

3 hours (33 hours), autumn or winter quarter (Boardman) (R 311) MW 10:30–11:30
autumn, 11; winter, 12

205. Infectious Diseases.—Clinics and recitations.

3 hours (33 hours), spring quarter (Dickson) (R 311) MWF 10:30–11:30
spring, 23

206. Diseases of the Kidneys, the Blood, and of Metabolism.—Clinics and recitations.

3 hours (33 hours), autumn quarter (Addis, Haven) (R 312) TThS 9:30–10:30
autumn, 23

207. Experimental Medicine.—Discussion of selected topics dealing with the functional pathology of internal diseases.

2 hours, autumn quarter, 1 hour, winter and spring quarters (44 hours in all) (Hewlett) (Lane Hall) M 11:30–12:30 autumn, winter, spring quarters; Th 11:30–12:30 autumn quarter
winter, 23; spring, 23

208. Tropical Medicine.—Clinics and recitations.

2 hours (22 hours), spring quarter (Reed) (Lane Hall) T 8:30–9:30, W 9:30–10:30
spring, 23

209. Diseases of the Endocrine Glands.—Clinics and recitations.

1 hour (11 hours), spring quarter (Arnold) (R 311) S 10:30–11:30
spring, 23

210. Physical Therapeutics.—Lectures and demonstrations of various methods other than the use of drugs that are employed in the treatment of diseases: including hydrotherapy, electrotherapy, mechanotherapy, etc.

2 hours (22 hours), winter quarter (Langnecker) (R 311) MTh 2:30–3:30
winter, 23

211. Dietetics.—Lectures and recitations.

2 hours (22 hours), spring quarter (Addis) (R 311) MF 2:30–3:30
spring, 23

212. Pediatrics.—Presentation of cases and recitations from assigned reading.
1 hour (22 hours), autumn and winter quarters (Faber, Cosgrave) (Lane Hall) T 11:30–12:30
autumn, 24; winter, 23

213. Pediatrics.—Physical diagnosis and history taking; theory of infant feeding; diseases and special problems of the new-born.
1 hour (22 hours), autumn and winter quarters (Faber and others) (Lane Hall) S 10:30–11:30
autumn, 24; winter, 23

214. Lectures on Pediatrics.—Autumn quarter, Communicable Diseases; Winter, Child Welfare; Spring, Mental Deficiency.
1 hour (33 hours), autumn, winter, and spring quarters (O'Neill, Brown, Ritter) (Lane Hall) Th 1:30-2:30, autumn and winter quarters T 11:30–12:30, spring quarter
autumn, 24; winter, 23; spring, 22

215. Neurology.—Clinics, lectures, and recitations.
2 hours (44 hours), winter and spring quarters (Inman) (Lane Hall) TTh 9:30–10:30
winter 23; spring, 23

216. Dermatology.—Lectures and recitations.
1 hour (22 hours), winter and spring quarters (Alderson) (R 311) S 9:30–10:30
winter, 23; spring, 23

217. Radiology.—Lectures and section work.
2 hours (22 hours), winter quarter (Chamberlain, Newell) (Lane Hall) Lec. T 3–4; (X-Ray Dept.) Sections MWF 4:30–5:30
winter, 23

For Fourth-Year Medical Students

(For morning work the fourth-year class is divided into two sections, one of which works at the San Francisco Hospital, the other in the Lane Hospital and Out-Patient department.)

218. Set Clinic in Medicine.—Demonstration of patients from the ward and out-patient services of Lane Hospital.
1 hour (38 hours), third year, winter and spring quarters.
Fourth year, one and one-half quarters (Lane Hall) W 11:30–12:30
autumn, 14; winter, 23; spring, 12, 23

219. Ward Work: Lane Hospital.—For section at Lane Hospital.
4 hours (64 hours) (Hewlett, Cheney, Reed, Dickson) MTWTh 8:30–9:30
autumn, 12; spring, 11

220. Ward Work and Clinics: San Francisco Hospital.—Ward Clinics.
7 hours for 8 weeks (56 hours) (Hill, Read, Kenney, Lee) MTWF 8:30–10, Th 11–12
autumn, 13; spring, 13

Set Clinic.
1½ hours for 16 weeks (24 hours) (Hill) F 10–11:30
spring, 13

221. Tuberculosis Clinic: San Francisco Hospital.—Ward Clinics for sections.
1 hour (16 hours) (Clark) MS 9:30–10:30
autumn, 13; spring, 13

222. Neurology.—Ward work: Lane Hospital.
1 hour (16 hours) (Schaller) W 9:30–10:30
autumn, 13; spring, 11

223. Neurology Clinic: San Francisco Hospital.—Clinics.
2 hours (32 hours) (Wolfsohn) W 10–12
autumn, 12; spring, 13

224. Cutaneous Medicine.—Demonstration of patients, lectures and quizzes.
1½ hours (24 hours) (Alderson) (R 311) T 11–12:30
autumn, 12; spring, 12

225. Out-Patient and Ward Work in Pediatrics and Cutaneous Medicine.—Practical course. Students taking this course will arrange at the same time for spending the necessary 12 hours in Obstetrics 208.
6 hours (84 hours) (Faber, Cosgrave, Yerington, Alderson)
M 9:30–10:30, Th 9:30–11:30, F 10–11, S 9:30–11:30
autumn, 15; spring, 12

226. Communicable Diseases.—Ward Clinics to sections at San Francisco Hospital.
2 hours (32 hours) (O'Neill) TS 10–12
autumn, 12; spring, 13

227. Radiology.—Section work. Given to sections of one-fourth the class.
1 hour (11 hours), spring quarter (Chamberlain, Newell)
(X-Ray Department) TWThF 4:30–5:30
spring, 24

228. Psychiatry.—A weekly lecture preceded by a clinic.
1½ hours (49 hours), autumn, winter, and spring quarters (Mehrtens, Cutting) (Lane Hall) M 1:30–3
autumn, 26; winter, 23; spring, 24

229. History of Medicine.—In association with other departments a weekly lecture or recitation will be held. The aim will be to have each department present that portion of the history of medicine in which it is most interested. The students will be assigned a certain amount of journal and other preparatory work.
1 hour (11 hours), winter quarter (Ophüls, Stillman, Hewlett, Spalding) (Lane Library) T 3:30–4:30
winter, 24

230. Jurisprudence.—The instruction in this course will be divided among the various departments, each one covering the points most essential to it. (Recent lectures in this course were delivered by Professors Cathcart, Whittier, and Vernier of the Stanford Law Department.)
1 hour (11 hours), autumn quarter (Dickson) (R 311) F 2:30–3:30
autumn, 25

Optional Courses for Fourth-Year Medical Students

(a) Radiology.—Special work in consultation with the division of Radiology. Either Therapy or Diagnosis may be followed.
Hours to be arranged, autumn quarter (Chamberlain, Newell)

(b) Roentgenoscopy.—Experience in actual use of the fluoroscope. Limited to two students per section, five sections.
1 hour (11 hours), autumn quarter (Chamberlain, Newell)
(X-Ray Department) MTWThF 3:30–4:30

(c) Bright's Disease and Diabetes.—An optional course in summer on Diagnosis and Treatment of Bright's Disease and Diabetes. Clinics and Laboratory work. (Whole day, though occasional hours off for anaesthetics, special clinics, etc.)

(d) Abnormal Psychology.—An optional course in summer.
2 hours (Mehrtens, Whitmire) By arrangement

VI. OBSTETRICS AND GYNECOLOGY

Alfred Baker Spalding, Professor.
George Burbank Somers, Clinical Professor.
Ludwig Augustus Emge, Assistant Professor.
William E. Stevens, Assistant Clinical Professor (Urology).
Henry Walter Gibbons, Frank Robert Girard, Henry Augustus Stephenson, Assistant Clinical Professors.
Albert Victor Pettit, Karl Ludwig Schaupp, Clinical Instructors.
Harry E. Clay, Hans von Geldern, Lewis Michelson, Arthur Lee Munger, Assistants.

[Students before graduation must pass in at least 165 hours of Obstetrics and 78 hours of Gynecology. They must witness at least 10 hospital confinements during their Junior year and attend at least 4 confinements in patients' homes during their Senior year. Women students must register for Optional Courses 213, 214, and 215 as a substitute for Surgery 218. Subjects will be given and hours arranged for thesis work.]

Required Courses

COURSES FOR SECOND-YEAR MEDICAL STUDENTS

201. Obstetrics.—Normal pregnancy, labor, and puerperium.
2 hours (22 hours), spring quarter (Stephenson) (R 506) TTh 8:30–9:30
spring, 43

COURSES FOR THIRD-YEAR MEDICAL STUDENTS

202. Obstetrics, Laboratory.—Lecture for one hour a week, laboratory work two hours a week.
3 hours (33 hours), autumn quarter (Spalding, von Geldern) (R 506) F 8:30–9:30, 1:30–3:30
autumn, 24

203. Gynecology.—Lecture one hour a week, laboratory two hours a week.
3 hours (33 hours), autumn quarter (Emge, Pettit) (R 506) M 8:30–9:30, 2:30–4:30
autumn, 24

204. Obstetrics.—Abnormal pregnancy and labor.
3 hours (33 hours), winter quarter (Spalding) (R 506) MTF 8:30–9:30
winter, 23

205. Obstetrics.—Abnormal puerperium and obstetrical operations.
2 hours (22 hours), spring quarter (Emge) (R 506)) MF 8:30–9:30
spring, 23

206. Ward Rounds or Women's Clinic.—One-third of class.
3 hours (33 hours), autumn, winter, and spring quarters (autumn, Stephenson, von Geldern, and Resident; winter, Stephenson, Pettit, and Resident; spring, Schaupp, Munger, and Resident. MF 9:30–10:30, W 1:30–2:30
autumn, 8; winter, 8; spring, 7

COURSES FOR FOURTH-YEAR MEDICAL STUDENTS

[For morning work the fourth-year class is divided into two sections, one of which attends the San Francisco Hospital, the other the Lane Hospital.]

207. Manikin Exercises.—One-third of class.
1 hour (11 hours), autumn, winter, and spring quarters (autumn, Schaupp; winter, von Geldern; spring, Munger) (R 515) one section W 1:30–2:30; other section F 1:30–2:30
autumn, 9; winter, 9; spring, 7

208. Women's Clinic.—Three students for periods of three weeks.
12 hours clinic work, autumn, winter, and spring quarters (autumn, winter, GIRARD; spring, GIBBONS) M 9:30–10:30; Th 9:30–11:30; F 10–11
autumn, 13; winter, 11; spring, 12

209. Ward Rounds Gynecology.—One-third of class divided into two sections.
1 hour (11 hours), autumn, winter, and spring quarters (autumn, SPALDING and EMGE; winter, PETTIT; spring, EMGE and PETTIT) one section, W 1:30–2:30; other section, F 1:30–2:30
autumn, 9; winter, 8; spring, 8

210. Operating Room: Lane Hospital.—One-third of class.
1 hour (11 hours), autumn, winter, and spring quarters (autumn and winter quarters, SPALDING; spring, EMGE) F 1:30–2:30
autumn, 8; winter, 8; spring, 3

211. Operating Room: San Francisco Hospital.—One-half of class. Students may elect either course 210 or 211.
1 hour (11 hours), autumn, winter, and spring quarters (autumn, winter, GIBBONS; spring, GIRARD) S 8:30–9:30
autumn, 12; spring, 8

212. Set Clinic.—Senior students must attend either autumn or spring quarter. Juniors must attend spring quarter.
1 hour (11 hours), autumn and spring quarters (autumn, SPALDING; spring, EMGE) (Lane Hall) S 11:30–12:30
autumn, 13; spring, 8, 23

OPTIONAL COURSES

213. History Taking: Women's Clinic.—Limited to 2 students.
2 hours (22 hours), autumn, winter and spring quarters (PETTIT) MF 8:30–9:30
winter, 2; spring, 2

214. Ward Rounds, Obstetrics or Gynecology and Operating Room, San Francisco Hospital.—Women students may substitute this for Surgery 218.
2 hours for 8 weeks (16 hours), autumn and spring quarters (autumn, GIBBONS; spring, GIRARD) T 10–11; S 8:30–9:30
spring, 2

215. Women's Clinic: Cystoscopy.—Required of women students during their Junior year as part substitute for Surgery 218.
1 hour (11 hours), autumn, winter, and spring quarters (autumn and winter, STEVENS; spring, MICHELSON) Th 8:30–9:30
winter, 2; spring, 3

216. Special Workers.
(PETTIT)
autumn, 1; winter, 3; spring, 2; summer, 4

VII. PATHOLOGY

WILLIAM OPHÜLS, Professor.
JEAN REDMAN OLIVER, Associate Professor.

(The following courses in Pathology are required of medical students: Pathology 201 (*b*), one quarter; Pathology 203, three quarters; Pathology 204, one and one-half quarters.)

COURSES FOR SECOND-YEAR MEDICAL STUDENTS

201. General Pathology (b).—A course of lectures, demonstrations, and laboratory work which covers inflammations, granulomata, and tumors.

One lecture of one hour and two laboratory periods of two and one-half hours each, per week. Continuation of course offered by Department of Bacteriology and Experimental Pathology. Prerequisites: Histology, Bacteriology, General Pathology. (*a*).

6 hours (66 hours), spring quarter (Ophüls, Oliver)
spring, 40 (R 405) TTh 1:30–4; M 8:30–9:30

202. General Pathology.—An optional course of weekly recitations covering the same ground as course 201.

1 hour (11 hours), spring quarter (Oliver) Time to be arranged

Course for Third-Year Medical Students

203. Special Pathology.—A course of demonstrations of fresh and preserved gross and microscopical specimens, illustrating selected chapters on Human Pathology. Part of the time will be devoted to the technique of postmortem examinations. Diagnostic work will be done in the spring quarter. Prerequisite: General Pathology (*a*) and (*b*).

4 hours (132 hours), autumn, winter, and spring quarters (Ophüls, Oliver) (Morgue, Lane Hospital) W 2:30–4:30; (R 405) WS 8:30–9:30
autumn, 24; winter, 23; spring, 23

Courses for Fourth-Year Medical Students

204. Clinico-Pathological Demonstrations.—One and one-half quarters required. During the summer quarter this will be supplemented by demonstrations of microscopical specimens at some convenient hour.

1 hour (16 hours) (Oliver) (Morgue, Lane Hospital) M 11:30–12:30
autumn, 14; spring, 12

205. Research Work in the Pathological Laboratory.—Students wishing to do special work in the Pathological Laboratory should have finished course 201. They should consult with the Executive of the Division in regard to the selection of a proper subject for investigation. As the laboratory accommodations are limited, students must do a reasonable amount of work, otherwise the privilege will be withdrawn. A deposit of $10 will be required to cover such material as is used by the student in the course of his work. Such part of this as is not drawn against will be refunded on the completion of the work undertaken. Work may be undertaken during any of the four quarters. The same regulations apply to work on theses or for advanced degrees in the department, except that in the latter case the students also should have finished course 203. (Optional.)

During the summer quarter a special effort will be made to accommodate properly prepared undergraduates or graduates who wish to do experimental work in Pathology.

(Ophüls, Oliver)

VIII. PHARMACOLOGY AND THERAPEUTICS

Paul John Hanzlik, Professor.
Floyd De Eds, Instructor.
Russell V. Lee, Clinical Instructor (Therapeutics).
Maurice L. Tainter, Assistant.
Elizabeth Presho, Research Assistant.

Second-Year Required Courses

201. Chemical Pharmacology.—This course includes tests for plant constituents and important drugs, the principles of pharmacy and pre-

scription writing, general toxicology, the physical and chemical basis of pharmacology, excretion, antiseptics, methods of administering drugs and reactions with tissues and unicellular organisms. The work consists of laboratory exercises, demonstrations, class conferences, and lectures.

Didactic, 20 hours; laboratory, 45 hours; total, 65 hours; first 5 weeks, spring quarter (Hanzlik, De Eds, Tainter)
Didactic Th 9:30–10:30, W 10:30–11:30, F 8:30–9:30; Lab. MWF 1:30–4:30
spring, 42

202. Experimental Pharmacodynamics.—This course consists of demonstrations and experiments on amphibia and mammals. Demonstrations by the instructor of the more difficult and complex experiments are given at each session before the class work begins. The results are discussed and systematized in class conferences, different methods of attaining the same or related objects being explained and practical applications indicated.

The work of courses 201 and 202 is fundamental and prerequisite to the other courses of the department.

Conferences, 22 hours; laboratory, 51 hours, last 5⅔ weeks, sixth quarter (Hanzlik, De Eds, Tainter)
Lab. MWF 1:30–4:30; Con. TTh 9:30–10:30, W 10:30–11:30, F 8:30–9:30
spring, 42

Third-Year Required Courses

203. Systematic Pharmacology.—This is the principal didactic course of the department. Instruction is given by lectures, demonstrations, and recitations, and treats of the experimental basis, toxicity, and clinical actions, uses and dosage of the more important drugs. Description and identification of the more important drugs are studied outside of regular hours.

66 hours, autumn and winter quarters (Hanzlik)
M 1:30–2:30, W 9:30–10:30, F 11:30–12:30
autumn, 24; winter, 24

204. General Therapeutics.—This course consists of a systematic presentation of the uses of drugs and other agents from the standpoint of diseases, and consists of lectures, recitations, and class drills in prescription writing.

42 hours, spring quarter (Lee) MTThF 1:30–2:30
spring, 23

Optional Courses

205. Research in Pharmacology and Therapeutics.—Open throughout the year to students for thesis, and graduates with proper qualifications and special interest in these subjects. Work in pharmacology proper may be done independently or under supervision in the department; in clinical pharmacology and therapeutics by collaboration, and consent, with the clinical department in which the work is selected. The clinical work is designed to cover actual observation of patients and ward visits with instructors of the clinical department. For students, not less than 6 hours per week.

IX. PHYSIOLOGY

Ernest Gale Martin, Professor.
Frank Walter Weymouth, Associate Professor.
James Percy Baumberger, James Rollin Slonaker, Assistant Professors.
George Daniel Shafer, Instructor.

[See courses 103, 104, 105, and 207 outlined on p. 285.]

X. SURGERY

Stanley Stillman (Executive), Emmett Rixford, Professors.
Frank Ellsworth Blaisdell, John Francis Cowan, Leonard Wheeler Ely, Associate Professors.
Albert Brown McKee, Rufus Lee Rigdon, Edward Cecil Sewall, Clinical Professors.
Leo Eloesser, Philip Kingsworth Gilman, Harrington Bidwell Graham, Harvard Young McNaught, Caroline B. Palmer, Associate Clinical Professors.
Edward B. Towne, Assistant Professor.
John Adolph Bacher, Hans Barkan, John Robert Burrows, Edmund Butler, James Root Dillon, Arthur L. Fisher, Harry Leslie Langnecker, Assistant Clinical Professors.
Otto Barkan, Harold Augustus Fletcher, Ross Wallace Harbaugh, J. Walter Jones, Roderic O'Connor, Lloyd Robinson Reynolds, Chester Howard Woolsey, Clinical Instructors.
Sigurd von Christierson, Hubert W. Dudley, William C. Hobby, J. Herman Kirk, Edgar C. Lee, Robert A. Ostroff, Lorruli Anna Rethwilm, August Henry Rosburg, Edward Salomon, Edward M. Talbott, Assistants.
George W. Hartman, Henry A. L. Ryfkogel, Lecturers.
Ferd W. Callison, Hiram B. Duncan, Assistant Lecturers.

Divisions

OPHTHALMOLOGY GENITO-URINARY DISEASES ORTHOPEDIC SURGERY
OTOLOGY, RHINOLOGY, AND LARYNGOLOGY

General Plan of Instruction

Instruction in the Department of Surgery commences in the sixth quarter in the Medical School in San Francisco.

The course in Principles of Surgery (Surgery 201) is a prerequisite to all of the courses in this department.

On completion of courses 201, 202, 203, and after satisfactory examination, students will be admitted to third-year standing.

Students will be admitted to fourth-year standing after having satisfactorily completed courses 204, 205, 206, 207, 208, 209, 210.

Before entering the fifth medical year, students of fourth-year standing are required to complete satisfactorily the following prescribed courses: 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, and to have passed a final examination in surgery.

Courses for Second-Year Medical Students

201. Principles of Surgery.—Recitations, demonstrations, and laboratory work, utilizing clinical and pathological material from the out-patient

clinics and Lane Hospital, and preparations from the museum and laboratory of Surgical Pathology.
3½ hours (38 hours), spring quarter (COWAN)
(R 506 and Surgical Clinic) MW 11:30–12:30, F 11–12:30
spring, 43

202. Fractures and Dislocations.—Recitations, study of X-Ray plates, and demonstrations of fractures and dislocations. All the important fractures and dislocations are produced on the cadaver and subsequently demonstrated by dissection.
2 hours (22 hours), spring quarter (BLAISDELL)
(Anatomical Amphitheatre) W 8:30–10:30
spring, 43

203. Surgical Diseases of Extremities.
1 hour (11 hours), spring quarter (COWAN)
(R 506 and Surgical Clinic) T 11:30–12:30

FOR THIRD-YEAR MEDICAL STUDENTS

204. Surgical Diseases of the Abdomen.
2 hours (32 hours), second half of winter and spring quarters (STILLMAN or COWAN) (Lane Hall) TTh 4–5
spring, 23

205. Surgical Diseases of Head, Neck, and Thorax.
2 hours (32 hours), autumn and one-half of winter quarter (MIXFORD, TOWNE) (Lane Hall) TTh 4:30–5:30
autumn, 23

[NOTE.—For courses 206 and 207, the third-year class will be divided into two sections, one of which will meet at the Men's Surgical Ward, and one in the Surgical Out-Patient Clinic alternately.]

206. Surgical Clinic: Dispensary.
1 hour (33 hours), autumn, winter, and spring quarters (STILLMAN, TOWNE) (Out-Patient Clinic) TTh 10:30–11:30
autumn, 24; winter, 23; spring, 23

207. Surgical Wards: Lane Hospital.
1 hour (33 hours), autumn, winter, and spring quarters (STILLMAN, TOWNE) TTh 10:30–11:30
autumn, 24; winter, 23; spring, 23

208. Set Clinic: Surgical Amphitheatre.
1 hour (22 hours), winter and spring quarters (STILLMAN, COWAN, or GILMAN) Th 11:30–12:30
autumn, 28; winter, 23; spring, 23

[ANESTHETICS: In connection with the clinical work, students are assigned in rotation, so that each one shall administer 10 anesthetics under the supervision of DR. CAROLINE PALMER or DR. JOHN BURROWS, Anesthetists to Lane Hospital. DR. PALMER also gives a course of three lectures on the administration of anesthetics. (3 hours, autumn quarter, 1st 3 Thurs. 11:30–12:30).]

209. General Surgical Pathology and Tumors: Surgical Laboratory.
3 hours (66 hours), autumn and spring quarters (COWAN, ELY, TOWNE) (R 506) TTh 2:30–4
autumn, 24; spring, 23

210. Introductory Course in Orthopedic Surgery.
2 hours (22 hours), winter quarter (ELY, LANGNECKER) (Lane Hall) M 3:30–4:30, F 1:30–2:30
winter, 23

FOR FOURTH-YEAR MEDICAL STUDENTS

[For morning work, the fourth-year class is divided into two sections, one of which attends the San Francisco Hospital, while the other attends the Lane Hospital.]

211. Surgical Clinic: Surgical Amphitheatre.
1 hour (16 hours) (COWAN or GILMAN) S 8:30–9:30
autumn, 14; spring, 12

212. Set Clinic: Surgical Amphitheatre.
1 hour (16 hours) (STILLMAN, COWAN, or GILMAN) Th 11:30–12:30
autumn, 14

213. Out-Patient Clinics: Dispensary.
1 hour (16 hours) (COWAN, GILMAN) MW 10:30–11:30
autumn, 13; spring, 12

214. Wards of Lane Hospital.
1 hour (16 hours) (COWAN, GILMAN) MW 10:30–11:30
autumn, 14; spring, 12

215a. San Francisco Hospital.—Ward Clinics.
4 hours for 8 weeks (32 hours) (RIXFORD, ELOESSER) MTWF 8:30–9:30
autumn, 12; spring, 13

215b. Set Clinic.
2 hours for 16 weeks (32 hours) (RIXFORD, ELOESSER) Th 9–11
autumn, 12; spring, 13

216. Surgical Anatomy and Operative Surgery: Amphitheatre at Medical School.
2 hours (22 hours), autumn quarter (BLAISDELL) TTh 3:30–4:30
autumn, 26

217. Orthopedic Surgery: Dispensary and Surgical Amphitheatre.
3 hours (48 hours) (ELY, FISHER) T 9:30–11, F 11–12:30
autumn, 14; spring, 12

218. Genito-Urinary Surgery: Surgical Amphitheatre.
1½ hours (24 hours) (RIGDON) F 8:30–10
autumn, 11; spring, 10
2 hours for 8 weeks (16 hours) (DILLON) (San Francisco Hospital) T 10–12
autumn, 10; spring, 11

218a. Optional Course.
1 hour (22 hours), autumn and winter quarters Lectures only
(DILLON) (R 318) F 4:30–5:30

219. Ophthalmology.
1 hour (33 hours), autumn, winter, and spring quarters (BARKAN)
(Lane Hall) T 1:30–2:30
1 hour (33 hours), autumn, winter, and spring quarters (MCKEE)
(Dispensary) T or Th 2:30–3:30
autumn, 26; winter, 24; spring, 24

220. Otology, Rhinology, and Laryngology.
1 hour (33 hours), autumn, winter, and spring quarters (SEWALL)
(R 311) Th 1:30–2:30
1 hour (33 hours), autumn, winter, and spring quarters (MCNAUGHT, BACHER, PRICE, ASHLEY) (Dispensary) T or Th 2:30–3:30
autumn, 26; winter, 24; spring, 24

220a. Optional Course.—Limited to four students. Work in the Clinic.
summer quarter (MCNAUGHT, BACHER)

221. Emergency Surgery.—Optional. Opportunity is offered to small groups of fourth-year medical students to take work in Emergency Hospitals during the spring quarter two afternoons a week, from 4 to 6:30 p. m. Students wishing to take this work should apply to Dr. E. BUTLER, the Chief of the Emergency Service, at 135 Stockton street, San Francisco. Students who expect to interne at the San Francisco Hospital are strongly advised to take this course as preparation for their work.

Special courses may be arranged for limited numbers of graduates in Medicine in the laboratory of Surgical Pathology and in the various Out-Patient Clinics and Hospitals. Such students may register for advanced degrees or as special workers.

A special course in the administration of anesthetics is offered to a limited number of graduates in Medicine. The course covers six months. Fee, $50 (PALMER).

PRE-NURSING CURRICULUM

The Pre-Nursing Curriculum is designed primarily for those who wish to prepare themselves for administrative, teaching, social service, or public health work. The curriculum consists of three years' work at Stanford University and two years at the Stanford School of Nursing, Stanford Hospital, San Francisco, the degrees of Bachelor of Arts and Graduate Nurse being conferred at the close of the five years. The completion of 135 units of University work and acquirement of 135 grade points are necessary before the student may enter the School of Nursing.

FIRST YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Subject	*Units*	*Subject*	*Units*	*Subject*	*Units*
Citizenship	4	Citizenship	4	Citizenship	4
*Chemistry 7	2	Chemistry 9	2	Chemistry 4	3
Language	3	Language	3	Language	3
Electives	6	Electives	6	Electives	5

SECOND YEAR

Language or Literature	3	English 2	3	English 2	3
History	3	History	3	History	3
Zoology 1	5	**Biology 3	3	Zoology 13 (Embry.)	5
Electives	4	Electives	4	Electives	6

THIRD YEAR

Physiology 101	5	Physiology 102	5	Bacteriology 1	6
Psychology 51a	3	Psychology 51c	3	Anatomy (Special)	5
Electives	7	Electives	7	Electives	4

This schedule presupposes entrance credit of 2 units in a foreign language (preferably French or German), 1 unit in Chemistry, and 1 unit in History.

*Students offering no entrance credits in Chemistry are required to take courses 1, 2, 3, and 4 (12 units), instead of 4, 7, and 9.

**Students having entrance credit in a biological science may omit Biology 3.

Some suggested electives are: Economics 22 (Labor Problems); Economics 103 (Care of Dependents); Economics 116 (Immigration); Education 134 (Hygiene of School Child); Education 175 (Education and Modern Social Problems); Entomology 108 (Animal Genetics); Political Science 2 (State and Local Governments); Political Science 118 (Government in its Relation to Industry); Public Speaking 4 (Vocal Expression); Public Speaking 5 (Reading Aloud); Law 1 (Introductory Course).

Graduates of schools of nursing affiliated with an institution of collegiate rank may be granted, on recommendation of the Pre-Nursing Committee, a maximum advanced credit of forty-five units, provided they have also fulfilled the requirements of graduation and recommendation from an accredited high school.

Graduates of accredited schools of nursing not affiliated with an institution of collegiate rank should have, in addition to the high school requirements, one year of successful administrative or educational experience.

For students entering with advanced standing a minimum of 45 units of resident work at Stanford University will be required. While this minimum of 45 units usually presupposes a residence of three

University quarters, the completion of the collegiate part of the Pre-Nursing Course in this minimum of time is possible only for those students who have fulfilled the requirements of the first six quarters (including the Lower Division requirements).

Students intending to take this work should confer with Professor C. S. Stoltenberg, Stanford University, or with Professor Maude Landis, Superintendent of Nurses, Stanford Hospital, San Francisco. Prospective students are urged to take their probationary period as nurses early in the course, while they are still at the University.

MEMORIAL CHURCH

The Rev. David Charles Gardner, Chaplain.
Warren D. Allen, Organist.

Services

Daily Chapel, with address, 7:50 a. m.
Sunday, Divine Worship and Sermon, 11 a. m. (Holy Communion as announced.)

Organ Recitals

Sunday, 4 p. m.; Tuesday, 4:15 p. m.; Thursday, 4:15 p. m.

MILITARY SCIENCE AND TACTICS

Leroy P. Collins, Major Field Artillery, Professor.
Charles E. Boyle, Captain Field Artillery; Harold A. Cooney, 1st Lieutenant Field Artillery, Assistant Professors.

A field artillery unit of the Reserve Officers Training Corps is maintained for the purpose of fitting students to become reserve field artillery officers while they are taking their regular college courses, thus enabling them, if called into active service during a national emergency, to best perform the military duties for which their capabilities and training as college graduates fit them in the service of their country.

The course is planned to cover a period of four academic years. Any student electing the course is expected to do so with the idea that he will complete the first two years' basic course, and, if possible, that he will elect and complete the last two years' advanced course; and that, upon its satisfactory completion, he will accept from the President of the United States, a commission as second lieutenant of Field Artillery in the Officers' Reserve Corps. If the college course is completed in three years, the commission may be awarded at that time. The obligation to complete the basic course may be cancelled for good and sufficient reasons approved by the head of the department and the President of the University. The advanced course is open to selected students who satisfactorily complete the basic course. They are required to attend one summer instruction camp of six weeks' duration, normally at the end of the first year of the

advanced course. Credit is given for R. O. T. C. work taken at other institutions.

All students enrolled in the R. O. T. C. are furnished uniforms and equipment without cost to themselves. While attending the summer instruction camp the Government defrays all expenses, including food, clothing, and mileage at the rate of five cents per mile to and from camp. The camp is a period of interesting and instructive work with the physical and moral development of the students well provided for, and, in addition, is valuable in its broadening effect on the student, who is associating with men from other leading American universities. Men taking the advanced course receive in addition to the above, commutation of subsistence at the rate of $12 per month for two years and pay while at the required camp. (Five units of credit will be given for satisfactory completion of the camp.)

The United States Government places at the disposal of the University for instruction purposes the necessary number of horses, horse equipment, personal equipment, 3-inch battery, one gun of each of the other types used by field artillery, fire control and reconnaissance instruments, motor equipment including caterpillar tractors, trucks, and motorcycles.

Field Artillery Course

First year basic (freshman)

10. Fundamentals of Military Science.—(3 hours per week.) Organization and administration of a battery; military hygiene; first aid and sanitation; customs of the service; military courtesy and discipline; morale; psychology of handling men and leadership; standing gun drill; school of the soldier; squad and battery dismounted.

1 unit, autumn quarter (Cooney)
autumn, 38

[Note.—This course with the other practical courses, viz., 11, 12, 21, 23, 25, and 4*p*, fulfills the college requirement of six courses of military or physical training.]

11. Topography and Communications.—(3 hours per week.)

a. Topography.—Military maps and mapping: theory, practice, reading, conventional signs, distances, direction, scales, elevation, contours, ground forms, road sketches, road reports; position, panoramic, and place sketches.

b. Communications.—Means of transmitting information; theory of telephones; the camp telephone; troubles and tests; the monocord switchboard; line installation and maintenance; artillery net.

1 unit, winter quarter (Cooney)
winter, 53

12. Battery Drill.—(3 hours per week.) Duties of the cannoneer in the firing battery and in mounted drills and maneuvers.

1 unit, spring quarter (Boyle)
spring, 4

Second year basic (sophomore)

22. Horses and Stable Management.—(3 hours per week.) The horse: care, conditioning, and training; care and management in the field; forage and animal nutrition; types of artillery horses; breeds and blood lines; shoeing, grooming, stable management and exercise; hippology: anatomy, physiology, points, conformation, and age of horse; wounds,

simple diseases and their treatment; veterinary medicines; entraining and detraining, care en route.
3 units, autumn quarter (COLLINS)
autumn, 31; winter, 30; spring, 23

23. Equitation.—(3 hours per week.) Saddling and bridling, adjustments; acquiring a firm seat at all gaits; use of aids.
1 unit, winter quarter (COONEY)
autumn, 39; winter, 2; spring, 6

24. Motors and Motor Transportation.—(3 hours per week.) Gas engines, motor vehicles, artillery trucks and tractors, theory, mechanical design, construction, operation, nomenclature, care, maintenance, etc.
3 units, winter quarter

2e. Practical Instruction.—(3 hours per week). *a.* Driving, care and use of motor vehicles. *b.* Cannoneer's instruction and fire discipline. *c.* Pistol, automatic rifle, and machine gun practice.
1 unit, winter quarter (COONEY)
winter, 42

2c. Field Artillery Topography.—(3 hours per week). Military maps and mapping: theory, practice, reading, distances, direction, scales, elevation, contours and ground forms; road, position, panoramic and place sketches, road reports; battle maps and charts, grids and use of same in reading maps and firing; instruments, traverse, intersection, resection, orientation, determining exact location of directing piece, the orienting line, laying guns with a declinated instrument, laying guns on base line, visibility and defilade, minimum elevation and range, dead spaces.
3 units, spring quarter

25. Driving and Draft.—(3 hours per week.) Battery drills and maneuvers mounted. The corporals are selected from this class.
1 unit, spring quarter (COONEY)
spring, 33

FIRST YEAR ADVANCED (JUNIOR)

130. Gunnery (Advanced).—(3 hours per week.) Ballistics, pressures, and velocities; the trajectory and its elements, trajectory problems; accuracy of fire; dispersion; range tables and corrections; shifts (transport) of fire; time fire: manipulation of the point of burst, the shrapnel cone; percussion fire: angle of incidence, remaining velocity, ground conditions.
3 units, autumn quarter (BOYLE)
autumn, 33; winter, 27; spring, 22

131. Reconnaissance.—(3 hours per week.) Composition and use of battery, battalion and regimental special details; reconnaissance, selection and occupation of battery positions; training of scouts and agents; communications in open and in stabilized warfare, laying out the telephone net; battery emplacements; camouflage.
1 unit, autumn quarter (BOYLE)
autumn, 31; winter, 20; spring, 11

132. Firing.—(3 hours per week.) Commands, methods of fire, methods of laying; determination of firing data, principles of fire; conduct and observation of fire: terrain board, blackboard, sand table and smoke bomb firing; percussion precision firing and practical use of range tables; lateral observation.
3 units, winter quarter

133. Conduct of Fire.—(3 hours per week.) Conduct of fire with blackboard, terrain board, smoke bomb, and subcaliber practice.
1 unit, winter quarter

134. Orientation.—(3 hours per week.) Methods of intersection, resection, and traverse; projections; Lambert system of grids; coördinates; control sheets; azimuths; orienting line; laying guns on base line; laying guns with a declinated instrument; visibility; dead space; position chart.
3 units, spring quarter

135. Driving and Draft.—(3 hours per week.) Battery drills and maneuvers, mounted. The sergeants are selected from this class.
1 unit, spring quarter (BOYLE)

SECOND YEAR ADVANCED (SENIOR)

140. Military History and Policy of the United States.—(3 hours per week.) A critical study of our military policy, and a military survey of the most important campaigns and battles of the United States (including the World War). Military operations and strategy.
3 units, autumn quarter (COLLINS)
autumn, 5; winter, 10; spring, 17

[NOTE.—This course is given by the History Department as "Hist. 74."]

141. Practical Instruction.—(3 hours per week.) Acting as assistant instructors for first-year students in course 10. Pistol and machine gun practice.
1 unit, autumn quarter

142. Military Law.—(3 hours per week.) History, authority, sources; procedure of courts-martial; rules of land warfare; military government; armistices, conventions, treaties.
3 units, winter quarter

143. Practical Instruction.—(3 hours per week.) Training as instructors in equitation.
1 unit, winter quarter (COLLINS)
winter, 17

144. Organization and Tactics.—(3 hours per week.) Fundamentals of the organization and tactics of the army and its various arms and elements; field artillery organization, tactics, operations, employment, information, ammunition supply; functions of various calibres of field artillery and principles involving the type used; divisional, corps and army artillery and functions of each; staff organizations, functions and duties; Field Service Regulations, field orders, logistics; map maneuvers.
3 units, spring quarter

145. Practical Instruction.—(3 hours per week.) Battery drills and maneuvers, mounted. The cadet officers are selected from this class.
1 unit, spring quarter (BOYLE, COONEY)
spring, 4, 37, 10, 19, 10, 7, 10

4p. Polo.—(3 hours per week.) Open to all students who have completed 23.
1 unit, autumn, winter, and spring quarters (BOYLE)
autumn, 17; winter, 13; spring, 13

MINING AND METALLURGY

THEODORE JESSE HOOVER, JAMES MACDONALD HYDE, Professors.
WELTON JOSEPH CROOK, WALDEMAR FENN DIETRICH, FREDERICK GEORGE TICKELL, Associate Professors.
ROY PARMELEE MCLAUGHLIN, LOUIS DAVID MILLS, HARRY WHEELER MORSE, Lecturers.

The Department of Mining and Metallurgy provides (*a*) a four-year pre-mining course leading to the degree of Bachelor of Arts; and (*b*) a two-year post graduate course in mining, metallurgy, or petroleum, leading to the degree of Engineer.

I. ADMISSION TO THE PRE-MINING DEPARTMENT

The entrance requirements are those defined by the University for admission to the Lower Division.

II. PRE-MINING CURRICULUM—LOWER DIVISION

Students intending to make mining, metallurgical or petroleum engineering a profession will register in the Lower Division, and complete two full years' work comprising the following curriculum:

FRESHMAN YEAR

Autumn Quarter		Winter Quarter		Spring Quarter	
Applied Math. 1*a*	5	Applied Math. 1*b*	5	Applied Math. 2a	5
Chemistry 7	2	Chemistry 9	2	Chemistry 4	3
Citizenship 1	4	Citizenship 2	4	Citizenship 3	4
Language	3	Language	3	Language	3
Engineering 1	1	Engineering 2	1		
Total	15	Total	15	Total	15

SOPHOMORE YEAR

Applied Math. 2*b*	5	Geology 103	3	Chemistry 20	6
History	3	History	3	History	3
English 2	3	Engineering 3	4	English 2	3
Geology 1*a*	5	Geology 142	4	Geology 143	4
		Mining and Met. 1	1		
Total	16	Total	15	Total	16

III. PRE-MINING CURRICULUM—UPPER DIVISION

Upon completion of the lower division work students will register in the Department of Mining and Metallurgy and complete the following pre-mining curriculum. Special students are not admitted to registration in this department. It will be noticed that in the Spring Quarter of the Junior Year a definite line of differentiation is made in the courses of study in mining, metallurgical, and petroleum engineering respectively. Students who do not desire to choose a definite line of work as early as the Spring Quarter of the Junior Year are advised to take the courses listed under the head of Mining. These courses are arranged so that there is room for a limited amount of elective work; it is recommended that such courses as Economics 3. 10, and 20, Engineering 106 and 110. M. E. 121, E. E. 102, 122, 103, 123, Chemistry 101, and Mineralogy 225, be chosen as electives:

Junior Year

AUTUMN QUARTER		WINTER QUARTER	
Geology 121	4	Physics-Statics 11	1
Civil Engineering 20	5	Applied Mathematics 3*a*	5
Mining and Metallurgy 105	3	Chemistry 111, 112	5
Electives	3	Electives	4
Total	15	Total	15

SPRING QUARTER

Mining		Metallurgy		Petroleum	
Physics-Dynamics 12	1	Physics-Dynamics 12	1	Physics-Dynamics 12	1
Physics-Heat 13	4	Physics-Heat 13	4	Physics-Heat 13	4
Applied Math. 3*b*	5	Applied Math. 3*b*	5	Applied Math. 3*b*	5
Geology 163	4	Mech. Engineering 12	3	Mech. Engineering 12	3
Elective	1	Chemistry 153	3	Electives	2
Total	15	Total	16	Total	15

SUMMER QUARTER

Geology 108	8			Geology 108	8
Geology 109	7	(None in Metallurgy)		Geology 109	7
Total	15			Total	15

Senior Year

AUTUMN QUARTER

Physics-Electricity 14	4	Min. & Met. 101	4	Physics-Electricity 14	4
Min. & Met. 101	4	Chem. 101	5	Min. & Met. 101	4
Mech. Eng. 11 or 12	3	Mech. Eng. 121	3	Geology 144	2
Electives	4	Electives	3	Electives	5
Total	15	Total	15	Total	15

WINTER QUARTER

Physics-Light 10	2	Physics-Light 10	2	Physics-Light 10	2
Min. & Met. 102	5	Min. & Met. 102	5	Min. & Met. 103	3
Min. & Met. 103	3	Min. & Met. 106	5	Mech. Engineering 121	3
Min. & Met. 106	5	Electives	3	Chemistry 127	5
				Geology 145	2
Total	15	Total	15	Total	15

SPRING QUARTER

		Geology 163	4		
		Physics-Electricity 14	4		
(None in Mining)		Electives	7	(None in Petroleum)	
		Total	15		

IV. Pre-Mining Degree

Students who complete the above four-year pre-mining curriculum in a satisfactory manner will be granted the degree of Bachelor of Arts.

V. Pre-Mining Courses

The seven courses described below are the only ones given in this department which are open to undergraduates:

1. History of Mining.—Lectures. A general survey of the metal supply of peoples and its effect on their progress in the arts, science, and culture;

relation of mining and metallurgy to other industries, and to civilization. No prerequisite.
1 unit, winter quarter (Hoover) T 9

101. Principles of Mining.—Lectures. Covering the whole subject, giving a comprehensive view of the industry, and serving as an outline for the orderly development of professional studies; prospecting; development; equipment; operation. Prerequisite: Geology 1*a*.
4 units, autumn quarter (Dietrich, Hoover, Crook) MTWTh 10
autumn, 22

102. Principles of Metallurgy.—Lectures. Elementary discussion of broad principles of ore dressing and metallurgical operations. Preparatory to more detailed treatment in later courses; crushing, classification, concentration, hydrometallurgy, pyrometallurgy. Prerequisites: Chemistry 20, Geology 121, or Chemistry 101.
5 units, winter quarter (Hyde) MTWThF 10

103. Principles of Petroleum Mining.—Lectures. Covers the whole subject of petroleum mining, giving the student a comprehensive view of the industry, and serves as an outline for the orderly development of professional studies. Properties, origin, accumulation, and occurrence of petroleum; valuation, development, production, storage, transportation, refining, and utilization. Prerequisites: Geology 1*a*, 142, and 143.
3 units, winter quarter (Tickell) MWF 9
winter, 22

104. Mine Rescue and First Aid.—Laboratory. In coöperation with the U. S. Bureau of Mines. No prerequisite.
1 unit, spring quarter (Dietrich) By arrangement
spring, 15

105. Pyrometallurgy, Iron and Steel.—Lectures. The principles, practice, and cost of producing iron and steel; Theory and practice of heat treatment; Introduction to metallography of steel; Theory, use, and production of alloy steels; Non-ferrous metals and alloys in Engineering construction. Prerequisites: Chemistry 7, 9, and 4.
3 units, autumn quarter (Crook) MWF 8
autumn, 106

106. Assaying.—Laboratory and Lectures. Determination of gold and silver in ores and metallurgical products. Prerequisites: Chemistry 111 and 112, Geology 121.
5 units, winter quarter (Hyde, Crook) MTWThF 1:05
spring, 10

VI. Graduate Division

Students who have completed the four-year pre-mining curriculum as outlined on p. 265 and have received the degree of Bachelor of Arts from the University (or have had degrees and adequate training at some other university, which in the opinion of the faculty, is equivalent thereto) will, upon passing a satisfactory examination, be admitted as candidates for the degree of Engineer. Two years' residence in the University and ninety units of approved work, of which at least forty-five units must be selected from the following graduate courses, together with the presentation of a suitable thesis, complete the requirements for the degree of Engineer.

VII. Graduate Courses

The following courses are open to graduate students in any department in the University. Some concessions in prerequisites are possible for those who are not candidates for the degree of Engineer in Mining and Metallurgy. None of the following courses are open to undergraduate students.

ECONOMICS OF MINING

201. Mine Valuation.—Lectures and Problems. General considerations; sampling and measurement; widths and volumes; economic geology; analysis of cost; price of metals; smelter contracts; amortization and depreciation; reserves; reports. Prerequisites: Mining 101 and either 102 or 103.

2 units, autumn quarter (Hoover) Th 10
autumn, 11

202. Mine Organization.—Lectures. The mining company; forms of business; frauds; selling mines; shares; balance sheet; profits; valuation; taxes; law. Prerequisite: Mining 201.

1 unit, winter quarter (Hoover) Th 9
winter, 14

203. Mine Management.—Lectures. Organization and discipline of staff; technical committees, consulting engineers, managing directors, general managers; business principles and scientific management; vocational and technical training; personal qualities and efficiency; organization and discipline of labor; reports; supplies and material; cost and accounts. Prerequisite: Mining 202.

1 unit, spring quarter (Hoover) Th 9
spring, 11

204. Valuation, Organization, Management.—Seminar and Problems. Analysis of data and elaboration of schemes of operation. Prerequisite: Mining 203.

1 unit, spring quarter (Hoover) By arrangement
winter, 5

205. Research and Thesis.—Original study of some problem in the economics of mining, metallurgy or petroleum.

5 units, autumn, winter, and spring quarters (Hoover) By arrangement

MINING

211. Prospecting and Development.—Seminar and Problems. The prospector; geological aspects; placer prospecting, prospecting for deposits in place, methods, and costs; engineering features; boring methods; development plans; methods and costs of shaft sinking, drifting, and raising; engineering records. Prerequisites: Mining 101 and either 102 or 103.

5 units, autumn quarter (Dietrich)
autumn, 11, 5

212. Surface Equipment.—Lectures and Problems. The economics and mechanics of surface equipment, including power, compressors, explosives, drills, roads, railroads, tramways, materials for structures, bins. Prerequisites: Mining 101, Physics 14, Engineering 110.

3 units, winter quarter (Dietrich, Crook) TTh 11, Th 1:05
winter, 10, 8

213. Underground Equipment.—Lectures and Problems. The economics and mechanics of power, hoisting, haulage, drainage and pumping, ventilation, illumination. Prerequisite: Mining 212.
3 units, spring quarter (DIETRICH, CROOK) TTh 11
spring, 5

214. Surface Operations.—Seminar and Problems. The methods and costs of open-pit and placer mining. Prerequisite: Mining 211.
5 units, winter quarter (DIETRICH) [Not given in 1923–24]
winter, 5, 3

215. Underground Operations.—Seminar and Problems. The methods and costs of underground mining. Prerequisite: Mining 214.
5 units, spring quarter (DIETRICH) [Not given in 1923–24]

216. Mine Engineering.—Seminar and Problems. Special advanced work in mining engineering; considerable experience in the field is a desirable prerequisite. Prerequisites: 211–215 inclusive.
2 to 5 units, winter and spring quarters (DIETRICH) [Not given in 1923–24]

217. Mining Research and Thesis.—Original study of some problem in mining engineering.
5 units, autumn, winter, and spring quarters (HOOVER, DIETRICH)
autumn, 1; winter, 1; spring, 2

METALLURGY

221. Crushing, Sizing, and Classification of Ores.—Lectures. Mechanical preparation of ores for concentration or hydrometallurgical treatment; principles, practice, and cost of crushing, pulverizing, sizing, and hydraulic classification of ores, transportation of pulp throughout the plant, and thickening of pulps. Prerequisite: Mining 102.
2 units, autumn quarter (HYDE) TTh 9
autumn, 7; winter, 22

222. Concentration Processes.—Lectures. The principles, practice, and cost of the concentration of metalliferous minerals from ores. Prerequisite: Mining 221.
2 units, winter quarter (HYDE) MW 11
winter, 5

223. Ore Dressing.—Laboratory. Mechanical testing by laboratory methods to determine best method of ore dressing. To accompany course 213. Prerequisites: Mining 102 and 221.
2 to 5 units, winter quarter (HYDE) By arrangement
winter, 3; spring, 2

224. Hydrometallurgy, Gold and Silver.—Lectures. The principles, practice, and cost of treating ores by amalgamation, cyanidation, chlorination, and lixiviation processes. Prerequisite: Mining 221.
3 units, autumn quarter (HYDE, MILLS) MWF 9
autumn, 5

225. Hydrometallurgy, Copper, Lead, and Zinc.—Lectures. The principles, practice, and cost of recovering copper, lead, and zinc from ores by hydrometallurgical processes. Prerequisite: Mining 221.
3 units, spring quarter (HYDE, MORSE) MWF 10
spring, 4

226. Hydrometallurgy.—Laboratory. Study of hydrometallurgical problems; to accompany courses 224 and 225.
2 to 5 units, autumn and spring quarters (HYDE) By arrangement
autumn, 3; spring, 1

227. Metallurgical Machinery.—Seminar and Problems. Design of an ore treatment plant. Prerequisite: Mining 226.
2 units, winter and spring quarters (Hyde) By arrangement

228. Pyrometallurgy, Copper, Lead, and Zinc.—Lectures. The principles, practice, and cost of recovering copper, lead, and zinc from ores by pyrometallurgical methods; details of smelter operations; the physical chemistry of metallurgical operations. Prerequisite: Mining 102.
3 units, spring quarter (Crook) TTh 8
spring, 2

229. Pyrometallurgy.—Laboratory. Experiments illustrating the principles of oxydizing, sulphating, and chloridizing roasting, desilverization of base bullion, formation of slags, fusibility of refractories, heat treatment of steel, with checking of results by pyrometry and chemical analysis. Prerequisite: Mining 228.
2 units, autumn quarter (Hyde, Crook) By arrangement
autumn, 2

230. Electrometallurgy.—Lectures and Laboratory. Review of electrochemistry as applied to electro-deposition of metals; principles and practice of electrolytic refining. The principles, practice, and cost of electric furnace work. Prerequisites: Mining 225, 228, and 234.
3 to 5 units, winter quarter (Crook, Morse) MW 8
winter, 5

231. Metallography.—Laboratory and Lectures. Study of the properties and microstructure of metals and alloys; technique of metallographic investigation and microphotography. Prerequisites: Mining 102 and 105.
3 units, winter quarter (Crook) T 8, MT 1:05
winter, 5

232. Pyrometry.—Laboratory and Lectures. Determination of high temperature and calibration of pyrometrical instruments. Prerequisites: Mining 102 and 105.
3 units, winter quarter (Crook) Th 8
winter, 5

233. Metallurgical Calculations.—Seminar and Lectures. Calculation of problems involving physical chemistry as applied to pyrometallurgy and hydrometallurgy; calculation of efficiency of processes and furnace operations. Blast furnace charge calculations, etc. Prerequisites: Mining 225 and 228.
3 units, autumn quarter (Crook) T 8
autumn, 4

234. Metallurgical Analysis: Ores.—Laboratory. Rapid methods for quantitative determination of constituents of non-ferrous ores and metallurgical by-products. Prerequisite: Chemistry *f*, Mining 102.
3 or 4 units, autumn quarter (Dietrich, Crook) MTW 1:05
autumn, 8

235. Metallurgical Analysis: Metals and Alloys.—Laboratory. Rapid methods for quantitative determination of constituents of metals and alloys, ferrous metallurgical products and raw materials. Prerequisites: 105 and 234.
3 units, spring quarter (Crook) By arrangement
winter, 3

236. Metallurgical Research and Thesis.—Original study of some problem in metallurgical engineering.
5 units, autumn, winter, and spring quarters (Hoover, Hyde, Crook)
winter, 2; spring, 1, 1

PETROLEUM

241. Petroleum Engineering.—Lectures. A course in the application of engineering principles to the solution of underground problems; construction of graphic logs and sections, correlation of strata, study of water problems. Prerequisite: Mining 103.
3 units, autumn quarter (TICKELL, MCLAUGHLIN) MWF 11
autumn, 12

242. Oil Well Water Analysis.—Laboratory. Rapid methods for the volumetric analysis of oil well waters. Prerequisites: Chemistry *f* or *g*. Mining 241.
2 units, winter quarter (TICKELL) MT 1
winter, 2

243. Oil Field Development.—Lectures. Dealing with the equipment and methods used in drilling oil wells. Prerequisite: Mining 103.
2 units, autumn quarter (TICKELL) TTh 11
autumn, 9

244. Production of Oil.—Lectures. The production of oil, control of wells, pumping methods, operations, dehydration. Prerequisite: Mining 243.
2 units, spring quarter (TICKELL) TTh 10
spring, 8

245. Storage and Transportation of Petroleum.—Lectures. Methods of storage and transportation; methods of gauging, design of tanks and pipe-lines, prevention of storage losses, fire hazards. Prerequisite: Mining 241.
2 units, winter quarter (TICKELL) TTh 9
winter, 5

246. Petroleum Refining and Utilization.—Lectures. Refined products and their use for fuels, light generation, and lubrication; the economics of petroleum. Prerequisite: Mining 244.
2 units, spring quarter (TICKELL) TTh 11

247. Oil Land Valuation.—Lectures. The methods used in appraising oil lands; estimation of future production, operating costs, depreciation of material, salvage, value of future profits. Prerequisite: Mining 244.
1 unit, spring quarter (TICKELL) T 9
spring, 7

248. Oil Testing.—Laboratory. Practice in testing crude oil and refined products.
2 units, spring quarter (TICKELL) By arrangement

249. Advanced Work in Petroleum Engineering.—Laboratory. Special work in courses 241 to 248.
2 to 5 units, autumn, winter, and spring quarters (TICKELL) By arrangement
autumn, 1; winter, 1; spring, 3

250. Petroleum Research and Thesis.—Original study of some problem in petroleum engineering.
5 units, autumn, winter, and spring quarters (HOOVER, TICKELL)
winter, 1; spring, 2

MUSIC

WARREN D. ALLEN, Organist, and Director of the University Choir.

1. Choir. The choir sings at the morning service each Sunday in Memorial Church, the music consisting of anthem, chant, and hymns. Continuous course until end of the year.
1 unit per quarter — Rehearsal Th 7:35
autumn, 53; winter, 68; spring, 65; summer, 13

2. Oratorio. A separate choir, formed for the performance of oratorio and other major choral works.
1 unit per quarter — Rehearsals as arranged
autumn, 34; winter, 60

3. Orchestra. (Definite announcements regarding possible organization of a University Orchestra cannot be made until the beginning of the autumn quarter.)
1 unit per quarter (ALLEN)

4. Band.
1 unit, autumn, winter, and spring quarters
autumn, 47; winter, 45; spring, 39

NURSING

CAROLYN E. GRAY, (Western Reserve University), Director (Summer Quarter).
MARY R. WALSH, SARAH GERTRUDE WHITE, Instructors (Summer Quarter).

A special five weeks curriculum for Administrators and Instructors in Schools of Nursing.

The curriculum is arranged for those interested in either or both of these two specializations of Nursing, and is open to all graduates of accredited Schools of Nursing, who meet the University entrance requirements of graduation from an accredited high school, or carefully considered equivalents.

A. REQUIRED SUBJECTS

I. FOR ADMINISTRATORS

1. General Psychology 1a.—Five lectures.
2½ units (PSYCHOLOGY FACULTY) — MTWThF 11

2. Administration in Schools of Nursing.—Five lectures.
2½ units, 1st half summer quarter (GRAY) — MTWThF 10
summer, 24

II. FOR INSTRUCTORS

1. General Psychology (See above).

3. Teaching Nursing Principles and Methods.—Five lectures.
2½ units, 1st half summer quarter (WHITE, WALSH) — MTWThF 1:05

a. Theory.—Organization and presentation of subject matter to students.

(1) Anatomy and Physiology; (2) Bacteriology; (3) Chemistry; (4) Ethics; (5) Solutions and Elementary Materia Medica.
(White) MWF 1:05
summer, 22

b. Practice.—Round table conferences. Organization and presentation of subject matter to students including demonstrations.
(Walsh) TTh 1:05
summer, 21

c. Assigned Trips of Inspection to San Francisco Hospitals and other hospitals of Bay Region.

Subjects 1, 2, and 3 may be taken together if a student so desires, though this precludes electives.

B. Electives

Electives may be chosen from courses offered by the various departments according to the preference and preparation of the individual student. Before registering for electives students are advised to consult the individual instructors. Courses suggested are: Classical Literature C6 (History of Roman Civilization), Economics 1 (Citizenship), Economics 53 (Problems of Poverty), English 4 (Vocal Expression), English 29 (Outline History of English Literature), Graphic Art 6a (Lectures on Painters), History 40 (The Great War).

PHILOSOPHY

Henry Waldgrave Stuart, Professor.
George Holland Sabine (University of Missouri), Acting Professor (Summer Quarter).
Harold Chapman Brown, Associate Professor.

Besides providing an adequate preparation for advanced studies in Philosophy, the requirements for an undergraduate course in this department leave opportunity for all the usual elements of a general or liberal education. Major students are required to present for the Bachelor's degree 35 units in Philosophy (in which courses 1, 2, 100, 101, and 200 must be included, and also to include, preferably during the first two years in the University, the general courses in Psychology and in Medieval and Modern European History. The second-year courses in French or German are recommended as a part of the Lower Division work of intending major students. Each major student will be expected to devote sufficient time to a minor subject to gain a substantial knowledge of some one of its divisions or aspects.

The department will enroll students for one year of graduate work, leading to the degree of Master of Arts or to a minor for the degree of Doctor of Philosophy. The philosophical section of the general library contains at present (1) upwards of twenty complete sets of the leading philosophical journals—for most of which current subscriptions are carried, (2) the best available editions of the works of the principal philosophers, and (3) an extensive and constantly increasing collection of standard and contemporary literature—historical, critical, and constructive—covering the various fields of philosophical study.

Elementary Courses

1. Logic.—The principles of Deductive and Inductive Logic, with special attention to the important types of fallacy. Open to all students. MTWThF 9
5 units, autumn quarter (Stuart)
autumn, 69

2. Ethics.—A short survey of the morality of primitive peoples as compared with more developed forms of morality. The working principles of good conduct. The important historic theories as to the ethical criterion. Prerequisite: second-year standing. TWThF 11
4 units, autumn quarter (Stuart)
autumn, 38

3. Modern Scientific Conceptions of Nature and Mind.—A study of current views of cosmic structure and the place of man and his activities in nature, in the light of recent developments in physical chemistry, evolutionary biology, and psychology. Prerequisite: second-year standing. TWThF 8
4 units, autumn quarter (Brown)
autumn, 31

4. Esthetics.—The origins and nature of art. Its significance for religion, morality, and social life. The rise of art forms. Contemporary theories of esthetics. Prerequisite: second-year standing. TWThF 9
5 units, spring quarter (Brown)
spring, 85

5. Inductive Logic.—Methods of investigation in use in the natural and social sciences, and the cardinal assumptions and principles on which these methods are based. The course closes with a brief introduction to the field of general philosophy. Prerequisite: course 1 or an approved equivalent. TWThF 9
4 units, winter quarter (Stuart)
winter, 17

6. Modern Philosophy.—A historical outline beginning with Descartes and emphasizing especially conceptions and principles which have had influence outside the field of philosophy. Open to all students above first-year standing. TWThF 9
4 units, summer quarter (Sabine)
summer, 17

Intermediate Courses

100. History of Philosophy.—The development of philosophical theories from the early Greek period to the end of the eighteenth century, with a brief outline of philosophical movements in the nineteenth century. Attention will be given throughout to the relations of philosophy with social and political conditions and with science, literature, and religion. Either quarter may be taken without the other. TWThF 10
4 units, autumn and winter quarters (Brown)
autumn, 40; winter, 52

101. Philosophy of the Nineteenth Century.—The development of philosophical problems in France, Great Britain, German, or America will be studied in successive years in relation to the particular national genius and the conditions under which they arose. Prerequisite: course 10, or special permission of the instructor for suitably qualified third- or fourth-year students. The subject for 1923 was German philosophy. TWThF 10
4 units, spring quarter (Brown)
spring, 20

103. Ethical Principles and Practical Life.—A comparative study of selections from Aristotle, the Stoics, the New Testament, Herbert Spencer, Matthew Arnold, Nietzsche, and Tolstoy. The contemporary historical conditions of various sorts which had influence in forming each type of ethical teaching, and the practical tendencies of each type when applied in actual behavior. Prerequisite: course 2 or an approved equivalent.

4 units, summer quarter (STUART) TWThF 8
summer, 14

104. The Social Order and the Individual.—Insect and animal "societies" and the types of human social organization. Social authority and individual initiative. The ethical basis of political obligation. The nature of democracy, aristocracy, and absolutism. Prerequisite: course 2 or an approved equivalent.

4 units, winter quarter (STUART) TWThF 11
winter, 16

ADVANCED AND GRADUATE COURSES

200. Problems of Contemporary Philosophy.—The texts for discussion were "Essays in Critical Realism" (Macmillan, 1920), and Sellars' "Evolutionary Naturalism" (Open Court, 1922), with references to other recent literature. Prerequisite: History of Philosophy, including the 19th Century, together with Introduction to Philosophy or an approved equivalent.

4 units, summer quarter (STUART) TWThF 11
summer, 5

201. English Philosophy in the Nineteenth Century.—Special attention was given to the rise of the theory of organic evolution and the bearings of this theory upon philosophy. Rogers' "English and American Philosophy Since 1800" (Macmillan, 1922), was used as a text. Prerequisite: History of Philosophy to the 19th Century, together with Introduction to Philosophy or an approved equivalent.

4 units, summer quarter (SABINE) TWThF 10
summer, 3

250. Seminary.—Autumn Quarter: (1) Bergson's *Matter and Memory;* (2) Topics in Political Philosophy (STUART). Winter Quarter: The Philosophy of Hume (BROWN). Spring Quarter: Individual Topics (BROWN).

autumn, 11; winter, 10; spring, 6

PHYSICAL EDUCATION FOR MEN

William Hulbert Barrow, Professor of Physical Education and Medical Adviser, Director of Encina Gymnasium.
Henry Wilfred Maloney, Director of Minor Sports, and Associate Director of the Department.
Ernst Brandsten, Director of Water Sports.
Robert Lyman Templeton, Director of Track and Field.
Ernest Paul Hunt, Director of Freshman Sports.
Andrew Kerr, Director of Football, and Associate Director of the Department.
Charles Wesley Davis, Director of Intramural Sports.
Harry E. Wolter, Director of Baseball.
Wellford Duffy Seay, Assistant to Director.
Glenn Scobey Warner, Advisory Coach in Football.
Claude E. Thornhill, Assistant Coach in Football.
William D. Fletcher, Graduate Manager of Athletics.
Wallace Denny, Trainer.

The Department of Physical Education for Men includes under its jurisdiction all of the recognized athletic activities of the men students of the University. Work is so graded and arranged that every student regardless of his ability is enabled and encouraged to take active part in these activities. With the exception of those who elect military training, enrollment in some chosen specified sport, for three one-hour periods per week, is required of all lower division students. Physical examination is made of all men in their first quarter at the University, and of all candidates for teams or athletic competition.

In addition to the required work, and the intercollegiate and intramural activities, courses will be offered from time to time when practicable in the theory and practice of certain sports. Such courses will combine lectures and required reading with field work and will carry academic credit. There is however no course given for prospective teachers of Physical Education. The first two courses listed below will be given each year to afford the opportunity for students to become familiar with certain essentials of personal and community health.

1. Elementary Physiology and Hygiene.—The course is designed for men students in their first year at the University and does not require any previous knowledge of the subject. There are two lectures a week and required reading. The course is general in character and covers elementary anatomy of the human body and its normal functioning, cell formation and the differentiation of body tissues, effect of and reaction to disease, personal hygiene, and first aid.

2 units, autumn quarter (Barrow) TTh 11
autumn, 46

1c. General Hygiene and Preventive Medicine.—This course continues into a broader field the work of course 1. It covers the health problems of the group rather than of the individual. Emphasis will be laid upon the hygiene of food, milk, and water supplies, general sanitation, and contagious disease. Prerequisites: course 1 or its equivalent, or

general courses in Biology or Physiology. Open also to women students.
2 units, spring quarter (Barrow) TTh 11
spring, 56

2. Theory and Practice of Football and Basketball.
1 unit, spring quarter (Kerr) TTh 10
spring, 29

3. Theory and Practice of Baseball, Informal Games, and Gymnastics.
2 units, spring quarter (Wolter, Davis, Hunt) MWF 11
spring, 20

4. Theory and Methods in Swimming and Water Sports.
1 unit, spring quarter (Brandsten) TTh 11
spring, 22

Football.
autumn, 328; spring, 172

Track.
autumn, 197; winter, 188; spring, 115

Basketball.
autumn, 167; winter, 70

Baseball.
winter, 133; spring, 496

Tennis.
autumn, 126; winter, 111; spring, 133; summer, 27

Water Sports.
autumn, 335; winter, 198; spring, 243; summer, 56

Soccer.
autumn, 88; winter, 51; spring, 19

Gymnastics and Corrective.
autumn, 75; winter, 64; spring, 28; summer, 4

Boxing.
autumn, 134; winter, 85; spring, 40; summer, 18

Fencing
autumn, 34; winter, 39; spring, 18

Wrestling.
autumn, 46; winter, 38; spring, 19

Handball.
autumn, 126; winter, 103; spring, 59; summer, 9

PHYSICAL EDUCATION FOR WOMEN

Helen Masters Bunting, Assistant Professor, and Director of Physical Education for Women.
Clelia Duel Mosher, Assistant Professor of Personal Hygiene, and Medical Adviser of Women.
Greta Johannsen Brandsten, Lois Marjorie Kendall, Instructors.
Georgina Meyer Burk, Secretary, and Assistant in Instruction.
Christine Fabb, Assistant in Instruction.

The aim of Roble Gymnasium, as a laboratory of personal hygiene, is to improve the standard of health of the women; to increase their mental and physical efficiency; to foster a spirit of democracy and sportsmanship; and so to prepare for the highest type of citizenship.

Physical Education is required of all lower division students, and satisfactory completion of each quarter in Physical Education is essential to promotion to the upper division. In general the arrangement will be as follows: One hour of gymnastics per week for each quarter, and two hours per week for one quarter each of dancing, swimming, and an outdoor sport. After one quarter has been successfully passed in each of these two-hour courses the student may choose any two-hour courses offered to complete her required number of quarters.

A physical examination is made of each student in order to give advice as to work to be undertaken and to aid the student in removing any physical handicaps.

One unit of university credit per quarter is given for three hours per week of satisfactory work in the activities courses, whether elective or required.

Personal Hygiene

1. Personal Hygiene.—A study of some of the factors which make for normal development and maximum efficiency in every day living.
3 units, winter, spring, and summer quarters (Mosher) MWF 11
winter, 10; spring, 32; summer, 14

Physical Education

1–5. Gymnastics.

1. Elementary Formal Gymnastics (1 hour), combined with a two-hour course in dancing, swimming, or sports. Required of freshmen.
1 unit per quarter (Brandsten, Kendall, Fabb)
winter. 65

2. Intermediate Formal Gymnastics (1 hour), combined with any two-hour Physical Education course. Required of sophomores; elective for juniors and seniors.
1 unit per quarter (Brandsten, Kendall, Fabb)
winter, 81

5. Remedial Gymnastics (2 hours), combined with course 1 or 2. Required of freshmen and sophomores whose posture demands special correction or who have other remedial handicaps. Elective for juniors and seniors. Open only on consultation.
1 unit per quarter (Kendall)
autumn, 30; winter, 65; spring, 29

10–19. Dancing.

10. Elementary Dancing, aesthetic and interpretive (2 hours).
winter, 15

11. Intermediate Dancing, interpretive and natural (2 hours).
spring, 20

12. Advanced Dancing, natural (2 hours).

One quarter of either No. 10, 11, or 12, required in freshman year. One or more additional quarters may be taken in sophomore year in fulfillment of the Physical Education requirement. Elective for juniors and seniors.
1 unit per quarter (Fabb) Combined with course 1 or 2

20–29. Swimming and Diving.

20. Elementary Swimming (2 hours).
autumn, 18; winter, 5; spring, 31

21. Intermediate Swimming. Requirement, 75 ft., any stroke (2 hours).
autumn, 40; winter, 9; spring, 53

22. Advanced Swimming. Requirement, 75 ft., crawl or trudgeon stroke, (2 hours).
autumn, 13; winter, 6; spring, 46

25. Elementary Diving. Requirement, straight dive from three-foot board (2 hours).
autumn, 4; winter, 12; spring, 14

26. Intermediate Diving. Requirement, running swan dive, back dive, forward jack-knife dive from three-foot board.
winter, 3; spring, 8

27. Advanced Diving. Requirement, in addition to that of course 26, backward jack-knife dive, and forward and backward somersaults from three-foot board.
autumn, 2; winter, 1; spring, 4

One quarter of either swimming or diving required in freshman year. One or more additional quarters may be taken in sophomore year in fulfillment of the Physical Education requirement. Elective for juniors and seniors.

1 unit per quarter (BRANDSTEN) Combined with course 1 or 2

30–242. Sports.

30. Elementary Archery.
autumn, 28; winter, 6; spring, 16

31. Intermediate Archery.
autumn, 4; winter, 5; spring, 11

32. Advanced Archery.
autumn, 2; winter, 1; spring, 9

33. Freshman Basketball.
winter, 29

34. Sophomore Basketball.
winter, 20

133. Junior Basketball.
winter, 20

134. Senior Basketball.
winter, 10

234. Graduate Basketball
winter, 6

35. Freshman Hockey.
autumn, 30

36. Sophomore Hockey
autumn, 36

135. Junior Hockey.
autumn, 35

136. Senior Hockey.
autumn, 19

236. Graduate Hockey.
autumn, 7

38. Elementary Tennis.
autumn, 20; spring, 18

39. Intermediate Tennis.
autumn, 31; spring, 27

40. Advanced Tennis.
spring, 17
41. Freshman Track.
spring, 5
42. Sophomore Track.
spring, 16
141. Junior Track.
spring, 6
142. Senior Track.
spring, 1
242. Graduate Track.
spring, 2

One quarter of one sport required in freshman year; one or more additional quarters may be taken in sophomore year in fulfillment of the Physical Education requirement. Elective for juniors and seniors.

1 unit per quarter (Bunting, Burk, Kendall, Fabb) Combined with course 1 or 2

110–299. Professional Courses.—Professional courses for training teachers of physical education. In preparation.

Regulations and Requirements

Costume.—The gymnasium suit is especially designed for Stanford students and must be purchased at Roble Gymnasium. A limited number of suits may be rented at a nominal cost in special cases, upon consultation with the Director. Regulation gymnasium shoes are required for gymnastic and outdoor classes. Ballet slippers are required for dancing classes. Swimming suits are provided by the University. Each student provides her own caps and towel tickets. The complete outfit costs approximately twenty dollars.

Tennis.—The student is required to furnish her own racquet and balls.

Removal of Property.—All suits, shoes, racquets, or personal property not claimed within three days after the close of classes in this department each quarter will be collected and disposed of.

Fees.—A fee of $1.00 per day will be imposed for needless late registration in required classes. A gymnasium fee of $5.00 is required of graduate students taking work in physical education. A fee of $2.00 will be charged for archery.

PHYSICS

David Locke Webster, Professor.
Frederick John Rogers, Associate Professor.
Joseph Grant Brown, Elmer Reginald Drew, Perley Ason Ross, Assistant Professors.
Arthur Jeffrey Dempster, Acting Assistant Professor (Summer Quarter).
George Russell Harrison, Instructor.
Finley Farrand Neal, Assistant.

Lower Division Courses

These courses are divided into two main groups. One of these includes courses prescribed or recommended for students preparing for biology, chemistry, geology, medicine, and other lines of work not classed as engineering. The other group is designed for engineering students. Each group covers the general subject of physics, but they differ somewhat in their emphasis on various topics, and even more in their mathematical prerequisites and the degree of facility in using mathematical methods which is required.

For a detailed statement on prescribed courses, the student is referred to the announcement of his own department. In general, however, the courses of interest to non-engineering students are courses 1 to 4 (inclusive), and course 20, while those of interest to engineers are courses 10 to 15 (inclusive) and course 20.

Prospective Physics majors may take courses of either group, but are advised to take 1, 2, 20, 4, and 15, in the order named, followed by some of the courses in the Upper Division list.

The details of each course are as follows:

1. Mechanics and Heat.—The lecture hours in this course are used chiefly for problem work on the application of mechanical principles to practical cases, and most of the experimental illustrations of these principles are found in the laboratory. The problems treated are on structures and machines of various kinds, and on the effects of inertia in moving bodies, including sound sources and sound receivers. Heat is treated only briefly, but with especial reference to the explanation of heat phenomena by the motions of molecules. The essential purpose of the course is not only to give information on these particular subjects, but also to introduce the student to the methods of exact reasoning needed in advanced scientific work of any kind. Three lectures, either with one laboratory period per week, counting 4 units altogether, or with two laboratory periods, counting 5 units altogether.

4 or 5 units, autumn quarter (Drew)
Lec. MWF 8 or 9; Lab. MTWThF 1:05–4:05; TTh 8–12 (any three hours)
autumn, 142

2. Light and Electricity.—This course contains first a brief survey of the fundamental principles of optical instruments. The rest of the course is concerned chiefly with problems on the common practical uses of direct currents, and experiments in the lecture room and laboratory illustrating their fundamental principles, including the essential principles of electrostatics, electrolysis, and magnetism. The last three weeks are given to brief surveys of alternating current phenomena and of the vacuum tube experiments that prove an electric current to be a stream of electrons.

4 or 5 units (as in course 1), winter quarter (Webster, Drew)
Lec. MWF 8 or 9; Lab. MTWThF 1:05–4:05; TTh 8–12 (any three hours)
winter, 137

2a. Mechanics.—The fundamental conceptions of the mechanical laws which are used throughout physics.

4 or 5 units, autumn and winter quarters (Harrison, Ross)
autumn, 28; winter, 24

4. Light.—The course will deal primarily with the subjects of refraction, dispersion, interference, diffraction, and polarization of light. The course

is designed especially for Physics and Geology majors but is open to others. Two lectures and two or three laboratory periods per week. Prerequisite: course 1 or 12.

4 or 5 units, autumn and spring quarters (Brown)
Lec. TTh 9; Lab. (two or three preiods) MTW 1:05–4:05

autumn, 13; spring, 23

11. Statics.—A laboratory course to be taken concurrently with corresponding part of Theoretical Mechanics (Applied Mathematics 3*a*, or Physics 111). (One laboratory period per week.)

1 unit, spring quarter (Ross) MTWThF 1:05–4:05

spring, 4

13. Heat.—The course will treat the subjects of expansion, change of state, calorimetry, transfer of heat, radiation, absorption, and the relation of heat to other forms of energy. The properties of liquids and gases, including elasticity, viscosity, surface tension, diffusion, and osmosis will be treated briefly. Prerequisite: course 12 or concurrently with 12.

4 or 5 units, winter and *spring quarters
winter, (Brown) Lec. TTh 11; Lab. (two or three periods) WThF 1:05–4:05
spring, (Harrison) Lec. MWF 11; Lab. (one or two periods) MTW 1:05–4:05

winter, 20; spring, 37

14. Electricity.—Magnets, magnetic fields, magnetic flux, and magnetic circuits. Electric currents, electromotive force, and resistance in electrical circuits. Electric charges, electric fields, and electric potentials. Electromagnetism, electromagnetic induction, electric and magnetic energy transformations. The C. G. S. and practical units of electrical quantities. Prerequisite: course 13.

4 or 5 units, autumn, *spring, and *summer quarters (Rogers, Drew, Dempster)
autumn, Lec. MWF 11; Lab. (one or two periods) MTW 1:05–4:05
spring, Lec. TTh 11; Lab. (two or three periods) MTThF 1:05–4:05

autumn, 63; spring, 22; summer, 16

15. Electricity and Electrical Measurements.—Precise measurements of current, E. M. F., resistance, electric power, capacitance, inductance, and the magnetic properties of iron. Lectures on the above topics and on electric oscillations and resonance, electric discharges, cathode rays, and electron tubes. Prerequisite: course 2 and calculus, or course 14.

4 or 5 units, winter quarter (Rogers)
Lec. TTh 11; Lab. (two or three periods) MTThF 1:05–4:05

winter, 56

20. Modern Physics.—A course on the discoveries of the last few decades on the nature of matter and energy. Specific topics covered are: Evidence for the reality of atoms, their sizes and their arrangements in the structures of crystals; electrons and nuclei as the constituents of atoms, with current theories of atomic structure; the wave theory of light and the electrical nature of light waves; the reactions between electrons, light waves, and atomic collisions, leading to the theory of quanta; the nature of space and time. These topics are not suitable for problems or laboratory work, and are therefore treated by reading and lectures, with lecture experiments where they are practicable. Prerequisite: course 2 or 14.

3 units, spring and *summer quarters (Webster, Dempster) Lec. MWF 9

spring, 84; summer, 11

Upper Division Courses

100. Ions and Electrons.—Ionization and conductivity of electrolytes. Ionization and conductivity of gases. Electrons in vacuum tubes. Electron theory of metals. Electron theory of magnetism. X-rays and crystal structure. Prerequisite: course 15.

5 units, spring and *summer quarters (Rogers, Harrison) Lec. MTThF 11; Lab. (one period) MTW 1:05–4:05

spring, 15; summer, 6

101. Advanced Electricity.—Electric forces, fields, and potential, and the computation of capacitances. The Faraday-Maxwell theory of dielectric stresses. Theories of magnetism and hysteresis. The circuital laws of electromagnetism, the computation of inductances. Electric oscillations and resonance. The elements of electromagnetic waves. Prerequisite: course 15.

5 units, autumn quarter (Rogers) Hours by arrangement

[Given in alternate years; not offered in 1923–24]

102. Radioactivity.—Lectures, lecture experiments, and a few laboratory experiments on radioactivity. Prerequisite: course 100.

4 units, autumn quarter (Ross) Lec. MTW 11; Lab. M 1:05–4:05

autumn, 2

110. Wave-Motion and Sound.—About one-third of the time will be given to wave-motion, using wave machines, wave models, ripple troughs, and lantern slides for illustration. The work on sound will deal largely with the production and propagation of sound, resonance, interference, musical instruments, and hearing. The production and properties of high frequency sound, the phonograph, the radiophone, and acoustics of auditoriums will be treated briefly. Two lectures and 2 or 3 laboratory periods per week. Prerequisite: course 1 or 12.

4 or 5 units, spring quarter (Brown) Lec. TTh 9; Lab. (2 or 3 periods)

[Given in alternate years; not offered in 1923–24]

autumn, 3

111. Theoretical Mechanics.—A course on the mathematical theory of mechanics for students of physics and mathematics. Students in this course may take course 11 (laboratory only) concurrently with it, and are advised to do so. Prerequisite: calculus.

5 units, winter quarter (Ross) Lec. MTWThF 9

winter, 4

112. Theoretical Mechanics.—A continuation of course 111. Students in this course may take course 12 concurrently, and are advised to do so. Prerequisite: course 111.

5 units, spring quarter (Ross) Lec. MTWThF 9

spring, 4

113. Mechanical Measurements.—A course in exact measurements of mass, length, time, gravity, elasticity, surface tension, viscosity, etc. The student will be given the privilege of selecting the field in which he works. Two or three laboratory periods per week. Prerequisite: course 1 or 12.

2 or 3 units, spring quarter (Brown)

autumn, 2

120. Optical Instruments.—Elementary geometrical optics of the prism, the thick lens, and combinations of lenses, as used in optical instruments. Theory of the diffraction grating and interferometer, resolving power

of instruments. Prerequisite: course 4. Three lectures and one laboratory period per week.
4 units, winter quarter (Drew) By arrangement
[In alternate years; to be given in 1923–24]

121. Physical Optics.—Lectures on emission and absorption spectra, magneto-optics, optical activity, fluorescence, and theories of atomic and molecular structure. Laboratory work with spectrometer, interferometer, and polarimeter. Prerequisite: course 120.
4 units, spring quarter (Ross) Lec. TTh 11; Lab. ThF 1:05–4:05
[In alternate years; to be given in 1923–24]
autumn, 1; spring, 2

140. History of Physics and Physical Sciences up to the opening of the 19th century. A course designed especially for students preparing for high school or college teaching, or for research in physics. Each member of the class is assigned a particular field and he is expected to prepare and present lectures on the history of this field. Prerequisite: a year of college physics.
2 units, autumn quarter (Ross) TTh 11
autumn, 3

141. History of Physics during the 19th century and up to the present. A continuation of course 120.
2 units, winter quarter (Ross) TTh 11
winter, 4

Courses Primarily for Graduates

200. Teacher's Course in Physics.—The history of the development of present day methods of teaching physics, and practice in outlining courses for use in the high school. Two lectures and one library period per week. Prerequisite: a year of college physics.
3 units, spring and *summer quarters By arrangement
spring quarter (Brown); summer quarter (Harrison)
autumn, 1; spring, 5; summer, 8

201. Literature of Physics.—An intensive study of the literature of special topics in physics. This course is intended for two classes of students: (*a*) those who expect to engage in research and wish to become familiar with the present status of the subject of the proposed research; and (*b*) those who are preparing for the teaching of physics and wish to acquire facility in working up a subject for class use. The work consists chiefly in the preparation and presentation of reports upon the topics studied.
(Ross, Webster, Harrison) By arrangement
autumn, 3; winter, 1, 1; spring, 1, 1; summer, 1, 3

210. Kinetic Theory.—The properties of gases deduced from the mechanics of molecules, equipartition of energy and specific heats, electron theory of conductivity, Brownian movement, surface energy, critical point and change of state, cohesion and cohesion phenomena. Prerequisite: course 112.
5 units, spring quarter (Ross) By arrangement
[Given in alternate years; not offered in 1923–24]

211. Thermodynamics.—Extended discussion of the second law of thermodynamics and its application to physical and chemical transformations. Prerequisite: calculus.
3 units, autumn quarter (Drew)
[Given in alternate years; not offered in 1923–24]

212. Electrical Theory.—Maxwell's equations and electromagnetic radiation; Poynting's theorem; electron theory. Prerequisite: course 101.
5 units, winter quarter (Rogers) By arrangement
[Given in alternate years; not offered in 1923–24]
winter, 2

220. Journal Club.—Oral reports on the current literature of physics by department faculty and graduate students.
autumn, winter, and spring quarters F 4:15–6:00

230. Research.—Under this head may be included all work on original problems, experimental or theoretical.
units and quarter by arrangement (Any member of the Department)

Requirements for Graduation.—For graduation in the department the minimum requirement is 60 units of Physics and Chemistry, of which at least 45 units must be Physics. Physics majors are advised to begin their work in Physics with courses 1, 2, 20, 4, 15, and 100, in the order named.

The Teacher's Recommendation.—The minimum requirement for a major is 45 units of Physics, which should include courses 1, 2, 20, 4, and 200. For a minor, the minimum requirement is 25 units, which should include courses 1, 2, 20, and 200. Courses in related subjects may be substituted for some of the physics courses on the approval of the Department of Physics. It is highly desirable for candidates for the Teacher's Recommendation in Physics to work as Teaching Assistants in the elementary laboratories. The practice teaching requirement of the Department of Education may be met in this way.

Laboratory Fees.—Courses with one laboratory period, $3 per quarter; two, $4 per quarter; three, $5 per quarter.

Summer Quarter

Courses given in the summer quarter are practically repetitions of certain courses given also in other quarters, but are not all listed here because their details depend on the choice of a visiting professor who will give some of them. The list will certainly include course 200 (Teachers' Course), 201 (Literature of Physics), and a course more or less similar to course 20 (Modern Physics), but probably with especial emphasis on some topic in which the visiting professor has recently been conducting research work of his own. There will also be one or more other courses of the Upper Division or Graduate list and perhaps course 13 or course 14.

PHYSIOLOGY

Ernest Gale Martin, Professor.
Frank Walter Weymouth, Associate Professor.
James Percy Baumberger, James Rollin Slonaker, Arthur Gibson Vestal, Assistant Professors.
George Daniel Shafer, Instructor.
Lawrence Becking, Assistant Professor of Economic Biology.
Charles Wilson Greene, Acting Professor (Summer Quarter).

[**General Biology and Economic Biology.**—See under Biology, p. 139.]

3S. General Physiology.—This course is designed to give a general survey of the physiology of living things, with special reference to marine animals and the application of the fundamental principles thus developed to the functions of other forms, including man. It is planned to accompany the elementary course in Zoology given at the Hopkins Marine Station, and to be so coördinated as to supplement the morphological conceptions developed in that course with the basic principles of physiology, thus furnishing to students a comprehensive survey of Biology. (For further details consult the announcement of Hopkins Marine Station.) Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. For regularly enrolled undergraduates the requirement will be concurrent registration in General Zoology; elementary chemistry and botany are highly desirable. To those enrolled only in the summer quarter the course is open with no other restriction than evidence of ability to take it with profit.

5 units, summer quarter, at Hopkins Marine Station (MARTIN, PEIRCE, WEYMOUTH, GREENE, AMBLER) MTW 1:30–4:30

4S. Elementary Lectures.—A lecture course open to qualified students. The subject matter of course 101 is covered. Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. Given only in alternate years.

2½ units, summer quarter, 1st half (SHAFER) [Offered in 1923]
summer, 9

5S. Elementary Lectures.—A course covering the subject matter of course 102. Given in alternate years. Will be offered in 1924.

2½ units, summer quarter, 1st half (SHAFER) MTWThF 9

101. Elementary Physiology.—The structure and functions of the body with special reference to the mechanisms of external adaptation, namely, muscles, nerves, and sense organs. Designed, primarily, for students who are not looking forward to the study of Medicine. Intended to impart a general conception of the relationship of the human body to its environment. Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. Open to students who have at least ninety units of college credit, or forty-five units, including previous training in Biology and Chemistry.

5 units, autumn quarter (SHAFER) Lec. MWF 10; Lab. ThF 1:05–4:05
autumn, 14

102. Elementary Physiology.—The structure and functions of the body with special reference to maintenance, growth, and energy liberation. In this course, special attention will be paid to circulation, digestion, excretion, and metabolism. Although designed to offer in connection with course 1 a survey of the field of human physiology, this course is planned so that it may be taken independently of course 1. Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. Requirements for admission the same as for course 101.

5 units, winter quarter (SHAFER) Lec. MWF 10; Lab. MT 1:05–4:05
winter, 12

103. Principles of Physiology.—An advanced study of the fundamental principles of physiology. The field is surveyed from the standpoint of the functioning of single cells and of multicellular organisms. An especial effort is made to familiarize the student with basic phenomena and their

interpretation. The course serves primarily as a preparation for courses 104 and 105, but is designed to meet the needs of advanced students who desire a general survey of the field and are unable to devote the time required for taking courses 103, 104, and 105. Required of majors in the department. Prerequisites for majors: eighteen units of Biology, including Histology; Physics 1, or its equivalent; Chemistry up to and including Physiological Chemistry. Advanced students of other departments presenting less than these prerequisites may be admitted on recommendation of their major departments provided that their previous training is of a character to enable them to take the course with profit; it is desirable that such training include Biology and Elementary Chemistry. Text-book: Starling's or McLeod's Physiology.

5 units, winter quarter (MARTIN, BAUMBERGER, SLONAKER) Lec. MWF 8; Lab. WF 1:05–4:05

winter, 45

104. Physiology of Maintenance.—The detailed application to man of the general principles developed in course 103, so far as they relate to bodily maintenance. The laboratory work will be based, as far as possible, on mammals, including the human body itself. Text-book: Starling's or McLeod's Physiology. Required of majors in the department. Prerequisite: course 103.

5 units, spring quarter (MARTIN, BAUMBERGER, SHAFER, SLONAKER) Lec. MWF 8; Lab. ThF 1:05–4:05

spring, 42

105. Physiology of Adjustment.—The detailed application of the principles developed in course 103 to the mechanisms by which in mammals and man the organism is adjusted to its environment; thus comprising a study of the sense organs, the nervous system, and the motor apparatus. Prerequisites as in course 103. Advanced students of other departments may be admitted on the terms stated under course 103 provided they present such work in the anatomy of the nervous system and sense organs as will enable them to profit by the course. Required of majors in the department. Text-books: Starling's or McLeod's Physiology, Herrick's Introduction to Neurology.

5 or 6 units, winter quarter (WEYMOUTH, BAUMBERGER) Lec. TThS 9; Lab. MT or ThF 1:05–4:05

winter, 39

206. Journal Club.—A study of physiological literature, with oral and written reports. Required during two quarters of majors in the department.

1 unit, autumn, winter, and spring quarters (WEYMOUTH) By arrangement

autumn, 4; winter, 10; spring, 7

207. Special Physiology.—An advanced non-laboratory course open to students who have had one of courses 103, 104, or 105. Designed to afford opportunity for the further study of selected subjects in Physiology. The work will be planned for the individual student.

1 to 5 units, autumn quarter (MARTIN, WEYMOUTH) By arrangement

autumn, 2; winter, 3; spring, 3

208. Research in Physiology.—Special problems involving laboratory work.

(MARTIN, WEYMOUTH) By arrangement

autumn, 1; winter, 3; spring, 2, 8; summer, 1

Students will be recommended for the A.B. degree by the Department of Physiology who have fulfilled the requirements for admission

to the Stanford Medical School, have taken courses 103, 104, 105, and two units of course 206 within the department, or equivalent courses elsewhere, ten additional units either within the department, or in the departments of Anatomy or Bacteriology, and lecture and laboratory courses in physiological chemistry to the amount required by the Stanford Medical School. Anatomy 1 (Histology) is a prerequisite, also, and cannot be counted toward the ten additional units mentioned above as optional from the Department of Anatomy.

The preliminary requirements of the Stanford Medical School are: Fifteen quarter units of college biology (General Biology, Comparative Anatomy, and Embryology usually offered); general chemistry, qualitative and quantitative analysis, lecture course in organic chemistry (24 units of chemistry); thirteen quarter units of college physics; nine quarter units of college English; a reading knowledge of either French or German.

Students who have completed the work of the Lower Division will be admitted as majors in the department, but unless they have taken forty or more units of science, including both general biology and general chemistry, they will probably find it impossible to satisfy the departmental requirements within the regularly allotted six quarters.

The Department requirement for students looking forward to Medicine is designed to enable them to cover the required pre-medical subjects and the work of the first year in the Medical Department of this University, or to fit them to undertake to advantage the work of other first-class medical schools.

The Teacher's Recommendation.—Programs are offered for students seeking the teacher's recommendation as follows: Teaching major: Elementary Chemistry, 9 units; Biology, 18 units, including either Comparative Anatomy, Vertebrate Embryology, or Histology; Physiology, 15 units (courses 103, 104, and 105).

Teaching minor: Elementary Chemistry, 9 units; General Biology, 9 units; Physiology, 10 units (courses 101 and 102).

POLITICAL SCIENCE

Victor J. West, Edwin Angell Cottrell, Professors.
Cephas Daniel Allin (University of Minnesota), Acting Professor (Summer Quarter).
Amelia Louise Hedges, Research Assistant.

It is the purpose of the Department of Political Science to provide instruction for (*a*) those students, whatever their special interests, who desire to be informed about the organization, relationships, and processes of political institutions, and (*b*) those who desire to become teachers or investigators in political science. The courses offered by the Department are so planned that, together with certain courses in Economics, History, Law, and Philosophy, they constitute a systematic and fairly complete treatment of the subject. Each course, except course 1, deals with a special phase of the subject and has a definite relation to all of the other courses offered, but is so presented as to be complete in itself.

Course 1 serves as a general survey of political science and as an introduction to all the other courses.

Graduation.—The Department accepts as majors both the specialists and the students desiring the fundamentals of a liberal education. The minimum requirements for the recommendation for the A.B. degree in Political Science are the completion (1) of the work of the Lower Division (or its equivalent) and (2) of about forty units of Political Science. The Department will endeavor to arrange the program of each of its major students to fit his particular aims. Certain courses in Economics, History, Law, and Philosophy may be counted as Political Science at the discretion of the Department.

Students taking Political Science as a major with the intention of preparing for journalism or law are referred to the announcements of the Departments of Journalism, (p. 77) and Law (p. 104).

Teacher's Recommendation.—For the recommendation for the high school teacher's certificate with Political Science as a minor, the applicant should have completed, in a manner satisfactory to the Department, at least 25 units in Political Science, including courses 1, 2, 10, and 102, and two other courses in the advanced group.

Advanced Degrees.—Advanced and graduate courses are described in the following pages. For the conditions under which candidates for higher degrees are accepted by the Department see the Graduate Study Circular.

Elementary and General Courses

1. Introduction to Political Science.—Fundamental political conceptions: state, government, nature and source of public authority, individual liberty; governmental organization; governmental functions; political parties; international relations. Open to all students. This course, or its equivalent, is prerequisite for all other courses offered by the department.

4 units, autumn, *winter, and *spring quarters (West, Cottrell) MTWTh 10
autumn, 261; winter, 242; spring, 197

2. State and Local Government.—Township, municipal, county, and state government in the United States, with special attention to California. (Open to first-year students by permission.)

5 units, autumn quarter (Cottrell) MTWThF 8
autumn, 67

Intermediate Courses

[Not open to students who have less than 40 units of University credit.]

10. Comparative Federal Government.—An inquiry into the operation of the federal principle in the United States, Germany, Switzerland, Argentina, Canada, Australia, and South Africa. Concerned chiefly with the "division of powers" and the relationships between central and local governments.

4 units, spring quarter (West) MTWTh 8
spring, 25

11. Parliamentary Government.—A study of those European governments in which the responsible ministry is the characteristic feature;

especial attention to England and France. Emphasis on the relationships between the representative assembly and the executive.
4 units, spring quarter (COTTRELL) MTWTh 8
spring, 62

14. Administration.—An examination of the organization and activities of administrative departments and commissions of the federal, state, and municipal governments.
4 units, winter quarter (COTTRELL) MTWTh 8
winter, 112

20. Current International Politics.—A study of the outstanding political problems resulting from the World War: the fulfillment of the Treaty of Versailles; the settlement of the allied debt; the Near Eastern question; the Facisti movement in Italy; other international questions of current interest.
3 units, winter quarter (STUART) [Not given in 1922–23]

ADVANCED COURSES

[Not open to students who have less than 80 units of University credit, except by special arrangement.]

31. Government and Politics of the British Empire.—The organization and workings of the English and Imperial constitutions, together with the discussion of the parties, party leaders, and policies at home and in the self-governing colonies, and the international status of the dominions.
4 units, summer quarter (ALLIN) TWThF 11
summer, 25

100. Elections.—The organization of the electorate for the performance of the functions of direction and control of governments: theories of voting; qualifications for voting; election methods—primary and ballot laws, safeguards against fraud, election contests, etc.
4 units, autumn quarter (WEST) MTWTh 8
autumn, 12

101. Legislatures and Legislation.—Composition, organization, and functions of representative assemblies; theories of representation; legislative procedure for control purposes and law-making; direct legislation.
4 units, summer quarter (WEST) TWThF 8
summer, 19

102. Political Parties.—The political party as a part of the political machinery; party organization; party activities; campaign methods; reform movements; public opinion and party leadership; the true functions of parties; party responsibility.
4 units, summer quarter (WEST) TWThF 10
summer, 21

110. Administrative Organization.—Principles of administrative organization; relation of executive to other branches; territorial distribution of administrative functions; organization of executive departments; elective versus appointive executives; single versus plural executives; responsibility of administrative officers; administrative reorganization in the United States.
4 units, autumn quarter (COTTRELL) [Not given in 1922–23]

111. Administrative Problems.—Methods of administrative control; the budget; accounting and reporting; purchase and supply; personnel—selection, promotion and demotion, removal and retirement.
4 units, spring quarter (COTTRELL) [Not given in 1922–23]

112. Municipal Administration.—The special problems of city government: City planning; streets and parks; lighting; water supply; waste disposal; health; police; fire prevention and protection; education; revenue, expenditure and debt; public utilities.
4 units, autumn quarter (COTTRELL) MTWThF 10
autumn, 56

113. Administration of Justice.—The principles and methods of administrative and judicial organization and procedure for the enforcement of law—the settlement of controversies, and the conviction and punishment for violation of law.
(See Law 259) [Given in spring 1922; not offered in 1923–24]

114. Foreign Relations.—Organization and functions of the Department of State; duties of diplomatic and consular officers; diplomatic usage; negotiation, ratification, and termination of treaties.
3 units, spring quarter (STUART) [Not given in 1922–23]

118. Government in Its Relation to Industry.—The effect on governmental problems caused by changes in business organization since the industrial revolution. The "laissez faire" versus the "general welfare" concept of governmental function. Measures needed to make the general welfare concept effective.
4 units, summer quarter (COTTRELL) [Not given in 1922–23]

119. Methods of Governmental Research.—The purpose of this course is the direction and training of students in methods of collecting and presenting data in governmental fields. Limited to 12 senior political science or economics majors.
4 units, spring quarter (COTTRELL) MTWTh 9
spring, 15

120. International Organization.—The attempts at international coöperation previous to the Great War; international administrative agencies, "unions," commissions, bureaus, etc.; arbitration tribunals; the coöperative agencies established by the allied and associated powers during the war; projects for international federation; the establishment of the League of Nations.
4 units, autumn quarter (STUART) [Not given in 1922–23]

121. The League of Nations.—Critical study of the Covenant of the League of Nations; the organization and functions of the League government; the various subordinate governing agencies; the mandate system; the work of the League of Nations.
3 units, winter quarter (STUART) [Not given in 1922–23]

GRADUATE COURSES

[Open to advanced undergraduates by permission.]

201. History of Political Theory.—Development of political thinking from ancient times to the present: Classical period; Medieval period, Rennaissance and Reformation; revolution and reaction; the analytical school; the historical school; recent tendencies.
4 units (————) [Not given in 1922–23]

202. American Political Theories.—Development of political thinking in America from colonial times to the present day, including the theories of the Revolution, the Constitution, the Jeffersonian and Jacksonian democracies, the slavery controversy, "states' rights," and modern tendencies.
4 units (————) [Not given in 1922–23]

203. Contemporary Political Theory.—A detailed study of the leading political ideas since the middle of the nineteenth century with special reference to the various contemporary doctrines regarding the relation of the State to property and labor,—socialism, guild socialism, syndicalism, the social catholic movement, etc.
4 units (————) [Not given in 1922–23]

204. Principles of Politics.—A systematic study of the principles of political science; scope and method of political theory; the nature of the state; the origin and basis of the state; sovereignty; the form of the state; functions of the state.
4 units, summer quarter (ALLIN) TWThF 9
summer, 18

240. Seminar in Politics.—Topic for 1922–23: Election laws.
2 units, autumn quarter (WEST) T2:05
autumn, 15

241. Seminar in Government.—Topic for 1922–23: Municipal functions.
2 units, winter quarter (COTTRELL) M 2:05
winter, 17

242. Seminar in International Relations.—Topic for 1923–24: Problems of world politics.
2 units, autumn quarter (STUART) [Not given in 1922–23]

250. Graduate Seminar.—For candidates for higher degrees.
2 units, spring quarter (WEST) M 2:05
spring, 4

Courses in public law are given by the Law Department, which offers the following:

[**Constitutional Law.** Law 225 and 226.]
[**Administrative Law and Public Officers.** Law 227.]
[**Municipal Corporations.** Law 238.]
[**Public International Law.** Law 216.]
[**Judicial Administration.** Law 259.]
[**Jurisprudence.** Law 217.]

The following courses offered by other departments deal very largely with subjects comprised in the field of political science:

[**Roman Law.** Classical Literature B25.]
[**Roman Municipal Organization.** Classical Literature C8.]
[**Public Finance.** Economics 21.]
[**English Literature and Political Thought.** English 185.]
[**Ideal Commonwealths.** English 197.]
[**British Constitutional History.** History 158.]
[**Tropical Colonization in the Far East.** History 167.]
[**Military Law.** Military Science 142.]
[**Social Order and the Individual.** Philosophy 104.]
[**Social Psychology.** Psychology 185.]

PSYCHOLOGY

Lewis Madison Terman, Walter Richard Miles, Professors.
[Truman Lee Kelley, Professor of Education.]
John Edgar Coover, Associate Professor, and Research Fellow in Psychic Phenomena.
Calvin Perry Stone, Assistant Professor.
Maud Amanda Merrill, Gertrude May Trace, Instructors.
Franklin Smith Fearing, Assistant in Instruction.
Albert Sidney Raubenheimer, Buckel Fellow.
Bird T. Baldwin, Edith Bronson, Florence Goodenough, Ruth Haines Livesay, Helen Marshall, Jennie Benson Wyman, Research Assistants in the Study of Gifted Children.

The courses offered by the Department of Psychology are planned to meet the needs of three groups of students: (1) undergraduate majors in psychology; (2) candidates for the A.M. and Ph.D. degrees wtih major or minor in psychology; (3) students of other departments who desire a general knowledge of psychology or its applications to certain specific fields such as education, economics, law, or medicine.

Requirements for A.B. and A.M. Degrees.—For the A.B. degree 45 units of psychology are required, including the following courses: 51, 55, and 60 or 190. It is recommended that students in the lower division who plan to major in psychology should take a laboratory science in the freshman year, preferably physics, biology, or physiology. Majors in psychology will ordinarily be expected to take additional courses in science before graduation. The work in psychology should be begun in the sophomore year with courses 51 and 55. Before the beginning of the junior year students are also advised to take Mathematics 20, or Applied Mathematics 1*a* and 1*b*.

For the A.M. degree 45 units of university work are required, including 30 units of psychology in addition to the A.B. requirements. Of the 30 units required, 9 may be devoted to thesis. Only students whose undergraduate work has been above average quality will be accepted as candidates for the A.M. degree in psychology.

Requirements for Ph.D. Degree.—The minimum residence requirement is three years beyond the A.B., of which the last year at least must be spent at Stanford. Although extensive course work is required, demonstrated ability to do original research is regarded as the most important criterion of fitness for this degree.

Besides acquiring a fairly broad mastery of the general field of psychology, candidates for the doctorate will be expected to do intensive work in one or more of the following lines: (1) Experimental Psychology (including psychical research and animal behavior); (2) Educational Psychology (including tests and measurements); (3) Industrial Psychology. A command of statistical methods and a good reading knowledge of French and German should be acquired as early in the student's course as possible. Candidates whose major is in Experimental Psychology will be expected to take a minor or considerable work in one or more of the following sciences: biology, physiology, neurology, physics, or chemistry; those who major in Educational Psychology will

ordinarily take a minor in education; those who major in Industrial Psychology will ordinarily take a minor in economics or education.

For additional information regarding advanced degrees see the Graduate Study Bulletin.

Requirements for Ph.D. Minor.—Candidates for the Ph.D. degree in other departments who elect a minor in psychology will be expected to take a minimum of 60 units of psychology, of which at least 20 units shall be of graduate character.

Major for Teacher's Certificate.—The department offers a major in psychology for the Teacher's Certificate, but does not offer a teaching minor. The requirement for teaching major is the same as that for the A.B. in psychology, viz., 45 units.

Experimental Laboratory.—Aside from lecture and seminar rooms, offices, and library the department has a laboratory comprising 28 rooms which are well adapted to experimental purposes. These facilities permit fairly large laboratory classes and provide for each pair of workers the isolation which is necessary for good results in experimental psychology. There are three dark rooms. Groups of rooms may be connected by a convenient switch-board arrangement. Each room is supplied with electric time from a master clock and with suitable outlets for various electric voltages. The laboratory is well equipped with duplicate sets of apparatus for elementary instruction. The following pieces of apparatus, among others, are available for advanced courses and research purposes: chronoscopes and time measuring apparatus of various types, including the recent Dunlap model, a large assortment of forks and other acoustic instruments, kymographs and pendulums of different forms, a string galvanometer outfit (American Model), the Ives-Cobb visual acuity tester, a complete photographic apparatus of the Dodge type for registering eye movements and reflexes, a pursuit-meter and other special devices for recording motor control, a psycho-galvanic reflex outfit, and a Benedict-Roth portable respiration apparatus together with other equipment for the study of problems in physiological psychology. For attacking problems in learning and the acquisition of skill there is likewise special instrumental provision. The department faculty will assist competent students in the development of special research apparatus.

Animal Laboratory.—The animal laboratory consists of a large room, 30 by 50 feet, equipped with the common laboratory animals and with suitable housing apparatus. The temperature of the room is practically constant throughout the year, making possible a large variety of experimental studies.

Library Facilities.—The University library is well equipped in general, experimental, educational, animal, and abnormal psychology, and includes practically all of the important periodicals in English, French, and German. A reading room is maintained in the department building in which the leading texts and periodicals are kept.

Fellowships and Assistantships.—The Dr. C. Annette Buckel Foundation, supplemented by additional support from the Board of Trustees of the University, has provided a research fellowship for the psychology and pedagogy of backward children. A research assistantship for the study of gifted children has also been provided.

REAGENTS.—A special point is made of trying to provide research students with suitable reagents. Accordingly, all advanced students are expected, when possible, to give a certain amount of time to this purpose.

LABORATORY AND SYLLABUS FEES.—A laboratory fee of $5.00 per quarter is charged for courses 55, 120, and 240. For courses 210, 225, 226, and 228 the fee is $3.00 each. For certain other courses a syllabus fee of $ .50 to $1.00 is charged.

1a. General Psychology.—A brief survey of the subject planned primarily to meet the needs of nurses.

2½ units, 1st half summer quarter (DEPARTMENT FACULTY) MTWThF 11
summer, 47

1b. Applied Psychology.—Introductory course in the applications of psychology to business.

3 units, spring quarter (TERMAN) MWF 11
spring, 57

3. Mental Hygiene.—A course designed primarily for first-year students, covering the elementary principles of habit formation, study, and kindred topics.

2 units, autumn quarter (TERMAN) TTh 11
autumn, 123

21. Physiological Psychology.

2 units, winter and spring quarters (MILES) TTh 10
winter, 15; spring, 8

51. General Psychology.—An introductory survey of the field of mental life. The point of view, methods, general principles of psychology, and the experimentally attested facts of the science are presented. While the primary emphasis is on normal adult psychology and the application of these facts to the control of human behavior, the animal and abnormal fields are also outlined, and an attempt is made to answer the practical questions which the beginner usually has when undertaking a study of psychology. Lectures and exercises. A continued course not open to first-year students, and open to seniors only by special arrangement. Woodworth's Psychology and Titchener's Text-book of Psychology have been used as the chief books of reference.

3 units, autumn and winter quarters (DEPARTMENT FACULTY) MWF 11
autumn, 199; winter, 143

55. Experimental Psychology.—A beginning laboratory course dealing entirely with human psychology, providing drill in the manipulation of simple psychological apparatus and in the technique of observation and introspection. A qualitative course covering sensation, perception, attention, reaction, association, and learning. Two three hour laboratory periods and one lecture or conference, with prescribed readings. A manual is used. Prerequisite: credit for or enrollment in course 51. Prospective majors are advised to take 51 and 55 concurrently and in their second year. Unless special permission is granted it is required that the autumn quarter's work in this course be a prerequisite to succeeding quarters.

3 units (55*a*) autumn and summer quarters, (55*b*) winter quarter, (55*c*) spring quarter (TRACE, FEARING) (I) MW 1:05–4:05, F 1:05–2:05; (II) TTh 1:05–4:05, F 1:05–2:05
autumn, 31; winter, 37; spring, 43; summer, 10

56. Experimental Psychology.—For prospective teachers.

3 units, autumn, winter, and spring quarters (TRACE)
autumn, 10; winter, 14; spring, 9

60E. Introduction to Statistical Methods.—A demonstration and working course in statistical methods. Data resulting from "chance causes" are secured in a class experiment and are subjected to a complete statistical treatment, including: the determination and evaluation of measures of central tendency, dispersion, precision, reliability, and differences between means and between distributions; seriation and plotting, curve-fitting; correlation. Theory is discussed in connection with practice. Students provide Kelley's or Rugg's text and a polyphase duplex slide-rule (with a B scale). Calculating machines and mathematical tables are available. Some knowledge of algebra is a prerequisite.

5 units, autumn quarter (Coover) MTWThF 10
autumn, 12

90. History of Psychical Research.—Lecture course. A canvass of opinion on psychic phenomena is made from the daily press, from the popular magazines, and from professional literature; a detailed study of the more important investigations by psychical researchers is made; canons of evidence and of experimental method are adduced, and the present status of the various psychic phenomena is defined. The psychology of testimony and the nature of scientific proof are considered in connection with the cases of research chosen for study. Assigned reading, class reports. Prerequisite: course 51 or a laboratory course in science.

3 units, spring quarter (Coover)
spring, 43

120. Advanced Experimental Psychology.—Laboratory work with human subjects covering a variety of topics, including complex qualitative problems and quantitative investigations. The course is designed to acquaint students with psychological apparatus, instruments and means of measurement as well as to provide a first-hand opportunity for them to perform some experiments rather intensively. One lecture or conference with prescribed readings and two 3-hour laboratory periods. Prerequisite: Psychology 51 and 55; statistical methods (60 or 190) must accompany or precede.

3 units, winter, *spring, and *summer quarters (Miles)
MW 1:05–4:05, F 2:05–3:05
winter, 3; spring, 2; summer, 12

130. Animal Behavior.—A critical survey of the experimental studies in animal behavior. The general topics of instinct, habit, imitation, retention, transfer of training, etc., will receive detailed consideration. Lectures, demonstrations, recitations, and class reports. Prerequisite: 6 units of General Psychology; 3 units of Experimental Psychology, or an equivalent number of units in a laboratory course in Zoology or Physiology.

3 units, winter and *summer quarters (Stone) MWF 9
autumn, 15; winter, 17

140. Psychophysical Methods.—A seminar course. Brief review of the development of psychophysical methods; systematic presentation and study of both experimental and mathematical procedures; study of the recognized sources of error in psychological experiments and means of eliminating or measuring them; application of the standard Phi Gamma methods, using Urban's tables, to typical data, usually obtained by the student in his current laboratory work; discussion of the "psychometric function." Titchener's "Quantitative Manual," Brown and Thompson's "Essentials of Mental Measurement," and the professional journals are

used for reference. A one-unit individual report is required. Prerequisite: courses 51, 55, and 60 or 190.
3 units, winter quarter (Coover) TTh 10
winter, 5

145. The Psychology of Industrial Personnel.—Psychological methods of selecting employees; methods of efficiency rating; personnel management, etc. Designed primarily to meet the needs of advanced students in economics and engineering. Prerequisite: course 51.
3 units, autumn and winter quarters (Strong) MWF 9

150. Advertising and Selling.—The psychology of appeal and response. Experimental studies in the psychology of advertising and salesmanship will be reviewed. Course 51 is prerequisite and course 55 is recommended.
4 units, autumn and winter quarters (Strong) MWF 8

160. Abnormal Psychology.—A general course devoted to the symptomatology of mental and nervous diseases; the institutional care and treatment of the insane; the use of psychoanalysis and psychotherapy in medicine and the social sciences. Prerequisite: course 51.
4 units, spring quarter (Stone) MTThF 9
winter, 13

165. Educational Psychology, Introductory.—A general introductory course intended primarily for teachers and undergraduate students. Lectures, demonstrations, recitations, reports. Prerequisite: course 51 or the equivalent.
4 units, autumn and *summer quarters (Stone) MTThF 11
autumn, 17

170. Mental Deficiency and Delinquency.—A study of mental retardation and its relation to delinquency. Mental traits of the feebleminded; heredity; classification; psychological diagnosis, etc. Results of experimental investigation of higher mental integrations. Prerequisite: courses 51 and 55.
3 units, summer quarter (Merrill) MWF 9
spring, 7

175. Psychical Research.—A library research course leading to a typewritten report on any phase of psychical research of special interest to the student. The more authoritative sources will be examined by the student. This course may be preparatory to research. No prerequisites; permission to register required.
autumn, winter, and spring quarters (Coover) By arrangement
winter, 1; spring, 1

180. Psychical Research.—A research course offering opportunity for experimental attack upon problems in the field of psychical research for which the laboratory equipment is adequate. Registration by permission.
autumn, winter, and spring quarters (Coover) By arrangement

185. Social Psychology.—Theories of social consciousness; an analysis of perceptual, ideational, instinctive, and emotional factors in social consciousness; suggestion and mob mind; institutional and community life. Prerequisite: course 51 or equivalent.
3 units, winter quarter (Trace) MWF 8
winter, 34

190. Elementary Statistical Method.—A study will be made of the various kinds of statistical series and the properties of each. The purpose of the first part of the course will be to discover what constitutes the significant features of a body of data. Opportunity to obtain

practice in the computation of the important constants of distributions will be given; also in the use of calculating machines and other aids to computation. The approach will be inductive, starting with measures and having as its object the discovery of the statistical resources which are available for determining the significance of data.

4 units, autumn and *summer quarters (KELLEY) MTThF 8

195. Suggestion.—A seminar. A study of the various phenomena which in the literature are comprehended under the term "suggestion;" the classification of these phenomena according to the psychological principles; the results of research; the relation of suggestion to the subconscious, dissociated, abnormal states of mind. Reading, reports, discussion, a one-unit individual typed report. Prerequisite: 18 or more units of psychology. Registration by permission.

3 units, spring quarter (COOVER) Th 7:30–9:30

205a. Advanced Human Psychology.—Beginning with a brief consideration of their historical setting, the topics of sensation, perception, and attention will be systematically covered through a review of the experimental literature. Open to qualified graduates and to senior majors.

3 units, summer quarter (MILES) MWF 10
winter, 15; spring, 8

205b. Advanced Human Psychology.—Memory, feeling, action, and emotion are the chief topics considered in a systematic discussion of research literature of these subjects. Open to qualified graduates and to senior majors.

3 units, summer quarter (MILES) MWF 10

210. The Learning Process.—A laboratory course providing the data and the opportunity for a qualitative and quantitative study of the development of efficiency in various learning situations involving different levels of complexity in materials and mental processes. Special attention to the statistical treatment of results and to graphic presentation, analysis of processes, and the morphology of skill. One hour seminar for discussion and reports of reading, and two laboratory periods weekly. Prerequisite: courses 51 and 55.

3 units, autumn quarter (COOVER) seminar W 1:05; Lab. MF 1:05–4:05

215a. Educational Psychology, Advanced.—Original endowment; mental development; individual differences in relation to heredity, sex, and environment. Lectures and class reports. Prerequisite: courses 51, 165, and 60 or 190.

4 units, winter quarter (TERMAN) MWF 11
winter, 13

215b. Educational Psychology, Advanced.—A critical survey of the literature of learning, formal discipline, work and fatigue, with special reference to the school program. Lectures and class reports. Prerequisite: courses 51, 55, 165, and 60 or 190. It is recommended that course 210 also precede.

4 units, spring quarter (TERMAN) MWF 11
spring, 14

220. Advanced Statistical Methods.—This is a continuation of course 190, and will deal primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores will be treated, with particular

application to educational and mental test data and problems. Prerequisite: course 190 or 60E.

4 units, winter quarter (KELLEY) MTThF 8

225. Mental Tests.—An introductory course dealing with the psychological principles of mental testing, test procedure, Binet and group tests, and practical applications. Prerequisite: courses 51 and 60 or 190. Course 55 must accompany or precede.

4 units, autumn, *winter, *spring, and *summer quarters (MERRILL) MWF 2:05–4:05

autumn, 17; winter, 11; spring, 4; summer, 5

226. Mental Tests.—Essentially a laboratory course, with one or two lectures weekly. Important types of mental tests will be subjected to experiment and critically evaluated. Course 225 is a necessary prerequisite.

4 units, spring quarter (TERMAN, MERRILL) MWF 2:05–4:05

230. Association of Ideas.—A seminar. The purpose is to clarify the student's conceptions of the ways in which mental elements are connected or combined or fused. Topics covered include the English "school" of association psychology and its dominance of popular psychology today; results of laboratory research; modern formulations from experimental results; importance to psychology; bearing upon learning and school practice. Assigned reading, reports, discussion, and a one-unit individual typewritten report. Registration by permission.

3 units, autumn quarter (COOVER) Th 7:30–9:30

231. Method of Experiment.—A seminar. An examination of scientific method and its applications to various types of research in experimental psychology; a study of typical researches; applications to present problems; inspection of statistical precedures appropriate to the various types of experimental procedures; consideration of criteria of validity of results. A one-unit typed report is required. Prerequisite: courses 55 and 60 or 190. Registration by permission.

3 units, winter quarter (COOVER) Th 7:30–9:30

240. Animal Behavior.—A laboratory course of experiments in vertebrate animal behavior. Each student will conduct a series of minor studies on congenital and learned responses of laboratory animals. Investigations leading to theses or advanced degrees may be begun in this course. Prerequisite: course 130.

3 units (or more by arrangement), spring quarter (STONE) MWF 1:05–4:05, or by arrangement

summer, 12

245. Psychological Clinic.—Practical experience in the use of tests in the diagnosis of defective and exceptional children. Practice in gathering data for case study of an individual. Observation of treatment and disposition of cases at the Juvenile Court and County Health Center. Prerequisite: courses 51, 55, and 225.

winter and spring quarters (MERRILL) By arrangement

250. Experimental Problems.—A minimum of eight hours' work in the psychological laboratory per week and thesis. For well qualified graduates and senior majors.

2 units, winter, spring, and summer quarters (MILES) By arrangement

winter, 6; spring, 3; summer, 3

255. Mind and Body.—A seminar course. The problem of the mind-body relationship is first given a brief historical consideration. The

psychological postulate of "psychophysical parallelism" is critically examined. The pertinent data of psychology, patho-psychology, and medical practice with mental disorders (including the aphasias) are collected and studied. The phenomena of hypnotism and the dissociation of personality are reviewed, and Freudian psychoanalysis is briefly but critically examined from the standpoint of physiological psychology. A one-unit individual typed report is required. Prerequisite: course 51.
5 units, spring quarter (Coover) MTh 1:05–3:00

267. Mental Development.—Seminar course. A critical survey of the most important studies of infancy, childhood, adolescence, and senescence. Intended primarily for major students in psychology or education who are in the second or third year of graduate work. A two-quarter course. Alternates with course 268.
2 units, winter and spring quarters (Terman) TTh 11

268. Psychology of Endowment.—A seminar and thesis course. Tests of general intelligence, special abilities, character, and personality; the psychology of genius; mental inheritance; race differences, etc. Intended primarily for major students of psychology or education who are in the second or third year of graduate work. A two-quarter course. Alternates with course 267.
3 units, winter and spring quarters (Terman) [Not given in 1923–24]
winter, 11; spring, 11; summer, 16

270. Psychometry.—Essentially a research course. Attention will be given to the analysis of mentality and to the measurement of interest, of special sensory capacity, and of certain specific habits and skills. The bearing upon problems of guidance will be stressed. Admission by consent of the instructor.
4 units, winter quarter (Kelley) MTThF 10

275. Seminar in Vocational Psychology.—Registration by permission.
autumn, winter, and spring quarters (Strong) By arrangement

280. Seminar.—Open to advanced graduate majors.
1 or 2 units, autumn and winter quarters (Terman) W 7:30–9:30
autumn, 8

285. Current Literature of Experimental Psychology.—Seminar. Open to graduates only.
1 unit, winter, spring, and summer quarters (Miles) By arrangement
summer, 4

290. Research.
(Department Faculty) By arrangement
autumn, 6; winter, 9; spring, 2; summer, 9

ROMANIC LANGUAGES

Oliver Martin Johnston, Clifford Gilmore Allen, Aurelio Macedonio Espinosa, Professors.
David Hobart Carnahan, Antonio García Solalinde, Acting Professors (Summer Quarter).
†Stanley Astredo Smith, Associate Professor.
Alfred Coester, Assistant Professor.
Frederick Anderson, William Leonard Schwartz, John Armstrong Sellards, Instructors.

† Absent on leave 1922–23.

The undergraduate courses in the Romanic Languages are planned so as to give students an intimate acquaintance with the modern forms of the languages spoken in the principal neo-Latin countries. To this end systematic attention is paid to pronunciation, reading, syntax, and conversation. In the higher courses special emphasis is laid on the study of literature. In order to give students an opportunity to become familiar with the spoken idioms, the majority of the courses are conducted in the language which forms the object of study.

The department offers advanced courses leading to the degree of Master of Arts and Doctor of Philosophy. The library contains adequate material for graduate courses in French and Spanish literature and philology. The Dante collection is also adequate for graduate work in this subject. The department also accepts candidates for certification as high-school teachers of French and Spanish in California and provides courses to meet the special needs of such candidates. Either French or Spanish may be selected as a major subject. In addition to the elementary course, which does not count as a part of the requirement, majors in French or Spanish must complete the following courses for the degree of Bachelor of Arts:

(1) Second-year course (15 units);
(2) Advanced Composition and Conversation (9 units);
(3) Six courses in literature or philology in the major subject.

These six courses must include an outline course in the literature of the major subject (A140 for French majors and B140 for Spanish majors, or their equivalent). It is desirable that the outline course precede the other literary courses in the subject.

Major students must register each quarter for at least one course in the major subject. This provision is intended to prevent students from crowding major requirements into certain quarters and from registering as French or Spanish majors in other quarters without taking any work in the major subject.

The total number of units required for the degree of A.B. will be approximately 43 or 44 units, exclusive of the elementary course.

The Teacher's Recommendaton.—The requirements for the teacher's recommendation are the same as for the Bachelor's degree with the exception of the fact that the following courses must be included:

A80 and A200E for majors in French.

B80 and B200E for majors in Spanish.

A reading knowledge of Latin and German is highly desirable. Recommendations will be given only on the vote of the department and will demand a degree of scholarship above the ordinary passing mark.

Some of the courses scheduled for the Summer Quarter extend through only one term of the quarter. Others extend through both terms, but credit will be granted for work done in either term.

A. French

I. ELEMENTARY AND INTERMEDIATE COURSES

A1. Elementary French.—Training in pronunciation by means of phonetic symbols. Oral work. The elements of French grammar; the regular verb and the verbs *avoir* and *être;* Fraser and Squair, French

Grammar, 20 lessons. Reading from Aldrich and Foster's French Reader.

5 units, autumn and *winter quarters (BRUNET, SMITH, WOODBRIDGE) (autumn) MTWThF 9, 11, 1; (winter) MTWThF 11
autumn, 33, 32, 13; winter, 25

A2. Elementary French (continued).—Oral work continued. Study of the irregular verbs. Fraser and Squair, French Grammar, to end of Part I. Reading from Aldrich and Foster's French Reader. Prerequisite: A1, or one year of high-school French.

5 units, winter and *spring quarters (SMITH, WOODBRIDGE) (winter) MTWThF 9, 11, 1; (spring) MTWThF 9
winter, 59, 12; spring, 22

A3. Elementary French (continued).—Thorough review of grammar. Oral work. Reading: About, Le Roi des Montagnes. Prerequisite: A2, or equivalent.

5 units, spring and autumn quarters (SMITH, WOODBRIDGE) (spring) MTWThF 9, 11; (autumn) MTWThF 9
autumn, 22; spring, 33

A21. Second-Year French.—Grammatical review. Composition, Reading. Course conducted as far as possible in French. Prerequisite: A3, or two years of high-school French.

5 units, autumn quarter (SCHWARTZ, SELLARDS, SMITH) MTWThF 9, 10
autumn, 53, 24

A22. Second-Year French (continued).—Grammar and Composition. Reading. Conducted as far as possible in French. Prerequisite: A21, or three years of high-school French.

5 units, winter quarter (SCHWARTZ, SELLARDS) MTWThF 9, 10
winter, 39, 27

A23. Second-Year French (continued).—Grammar and Composition. Reading. Conducted in French. Prerequisite: A22, or equivalent.

5 units, spring quarter (SCHWARTZ, SELLARDS) MTWThF 9, 10
spring, 27

A26. Second-Year French Scientific Reading.—Intended for engineers. Prerequisite: A3. Courses A26, 27, and 28 are not open to students taking A21, 22, and 23.

3 units, autumn quarter (W. JOHNSTON) MWF 11
autumn, 16

A27. Second-Year French Reading (continued).

3 units, winter quarter (BRUNET) MWF 11
winter, 27, 33

A28. Second-Year French Reading (continued).

3 units, spring quarter (BRUNET) MWF 11
spring, 27

A30. Directed Reading.

1 or 2 units per quarter
autumn, 4, 6, 3, 6; winter, 3, 8, 5, 9; spring, 38; summer, 2, 2

A40. Exercises Oraux.—Texts illustrating French life will be memorized to enlarge vocabulary. Oral review of grammar to facilitate conversation in correct French. Prerequisite: A3, or equivalent. Students should consult the instructor before registering in this course.

3 units (spring, SCHWARTZ) MWF 8; summer, 2d half (SELLARDS) MWF 8
spring, 6; summer, 18

A80. French Pronunciation.—Training in French pronunciation by means of practical phonetics. This course is of special interest to prospective teachers. Prerequisite: A3, or the equivalent.
2 units, spring quarter (SCHWARTZ) MWF 2:05
spring, 13

II. ADVANCED AND GRADUATE COURSES

A111. Third-Year French Composition and Conversation.—Composition based on French texts. Outside reading and written reports in French. Conducted in French. Prerequisite: A23, or four years of high-school French.
3 units, autumn quarter (SCHWARTZ, ANDERSON) MWF 10, 11
autumn, 11, 19

A112. Third-Year French Composition (continued).—Prerequisite: A111, or equivalent.
3 units, winter quarter (SELLARDS, ANDERSON) MWF 9, 10
winter, 7, 29

A113. Third-Year French Composition (continued).—Prerequisite: A112, or equivalent.
3 units, spring quarter (SELLARDS, ANDERSON) MWF 9, 10
spring, 16, 22

A121. Fourth-Year French Composition.—Translation of connected English prose into French. Original composition. Dictation. Prerequisite: A113.
3 units, autumn and summer quarters
(autumn) SELLARDS MWF 11; (summer) CARNAHAN, SELLARDS MWF 10
autumn, 10; summer, 16

A122. (Continuation of A121.)
3 units, winter quarter (SELLARDS) MWF 11
winter, 11

A123. (Continuation of A122.)
3 units, spring quarter (SELLARDS) MWF 11
spring, 14, 28

A130. French Classics.—Reading in class of masterpieces of French literature. Prerequisite: A23, or equivalent.
4 units, winter quarter (SCHWARTZ) MWThF 10
winter, 9

A140. Outline Course in the History of French Literature.—Pellissier: Histoire de la littérature française. Vreeland and Michaud: Anthology of French Prose and Poetry. Outside reading. Prerequisite: A23, or the equivalent.
5 units, autumn and summer quarters (autumn) ANDERSON MTWThF 9
(summer) CARNAHAN, SELLARDS MWF 10
autumn, 35; spring, 1; summer, 15

A141. The French Drama.—Lectures on the development of the French drama with special emphasis on the nineteenth century. Outside reading and reports. Prerequisite: A23, or equivalent.
3 units [Not given in 1922–23]

A141a. The Contemporary French Drama.—Readings and reports.
2 units, spring quarter (SELLARDS) By arrangement
spring, 13

A142. The French Novel.—Lectures in French on the history of the novel in France. Emphasis will be placed on the movements of the nineteenth century. Prerequisite: A23, or equivalent.
3 units, autumn quarter [Not given in 1922–23]

A142a. The Contemporary French Novel.
3 units, autumn quarter (SELLARDS) MWF 8
autumn, 28; summer, 2

A143. French Lyric Poetry.—Course conducted in French. Preliminary study of medieval poetical forms, leading to extensive reading in class of nineteenth century poets. Intended to familiarize students with the best-known masterpieces. Textbooks: Oxford Book of French Verse, Henning's French Lyrics of the Nineteenth Century. Prerequisite: A23, or equivalent.
4 units, autumn quarter (SCHWARTZ) TWThF 8
autumn, 6

A145. French Historians.—Lectures on French Historians of the nineteenth century. Reading of selections. Prerequisite: A23, or its equivalent.
3 units, autumn quarter (ANDERSON) MWF 10
autumn, 10

A151. Molière.—The complete works will be read with special attention to the characters in the plays. Readings and reports. Prerequisite: A23, or equivalent.
3 units, winter quarter (SCHWARTZ) MWF 8
winter, 16

A152. Literary Criticism.—Lectures on the history of literary criticism in France. A careful study of Madame de Staël; De l'Allemagne, and various works by Schérer, Taine, and Renan. Prerequisite: A23, or equivalent.
3 units, winter quarter (ANDERSON) MWF 11
winter, 12

A161. French Literature in the Seventeenth Century.—Lectures on the formation of the classic ideal in France and on the main movements, authors, and works of the classic age. Outside reading and reports. Prerequisite: A23, or the equivalent.
3 units, spring quarter (ANDERSON) MWF 9
spring, 16

A162. French Literature in the Eighteenth Century.—A study of the main ideas and tendencies of the period as illustrated by the lives and works of its most important authors. Outside reading and reports. Conducted in French. Prerequisite: A23, or the equivalent.
3 units (SMITH) [Not given in 1922–23]

A163. The Romantic Movement in France.—A study of the main features of romanticism as manifested in the lives and works of the forerunners and of the most important representatives of the French romantic movement. Lectures in French. Outside reading. Class discussions. Prerequisite: A161, or equivalent.
3 units, summer quarter, 1st half (CARNAHAN) MWF 8
summer, 12

A170. Corneille.
3 units (JOHNSTON) [Not given in 1922–23]

A200. Problems of Teaching French.—Practice in the use of the phonetic method as a means of teaching French pronunciation, review of French grammar, lectures on methods of teaching French, pedagogical bibliography, and suggestions regarding available textbooks. Practice teaching.
3 units, winter and summer quarters (JOHNSTON)
(winter) TTh 9, (summer) TTh 2:05
autumn, 1; winter, 19; summer, 7

III. PRIMARILY FOR GRADUATES

A201. Introduction to the Study of Old French.—Reading and interpretation of old French texts selected from Bartsch-Wiese, Chrestomathie de l'Ancien Français, with a study of Old French Phonology and Morphology.
3 units, winter quarter (JOHNSTON) TTh 2:05
winter, 7

A202. French Historical Grammar.—Lectures on Old French Phonology and Morphology.
3 units (JOHNSTON) [Not given in 1922–23]

A203. French Historical Syntax.—The most important phases of modern French syntax will be studied from a historical point of view. This course is intended primarily for teachers.
2 units, summer quarter (JOHNSTON) T 2:05
summer, 7

A204. Old French Literature.—French literature from the beginnings to the fifteenth century, with emphasis on the literary and social traits. Outside reading and reports.
3 units, summer quarter (JOHNSTON) MWF 2:05–3:05
summer, 9

A205. French Arthurian Romances.—Lectures on the romances of the Round Table, the legend of the Holy Grail, and the legend of Tristan and Iseut. Outside reading and reports.
3 units (JOHNSTON) [Not given in 1922–23]

A240. Graduate Thesis.
3 to 5 units per quarter

A250. French Seminary.—Floire et Blancheflor.
3 units, autumn quarter (JOHNSTON) T 2:05–4:05
autumn, 4

A251. French Seminary.—The Old French Epic.
3 units (JOHNSTON) [Not given in 1922–23]

B. SPANISH

I. ELEMENTARY AND INTERMEDIATE COURSES

B1. Elementary Spanish.—The elements of grammar, composition and conversation. Texts: Espinosa and Allen, Beginning Spanish, lessons I-XXV; Espinosa, First Spanish Reader, I.
5 units, autumn and winter quarters (CAMPBELL, DONOHO, GREGERSEN, SELNA, WILLIAMS) (autumn) MTWThF 8, 9, 11, 1:05; (winter) 9
autumn, 34, 38, 34, 26, 33, 8; winter, 28; spring, 28

B2. Elementary Spanish (continued).—Texts: Espinosa and Allen, Beginning Spanish, Lessons XXVI-XLVII; Espinosa, First Spanish Reader, II.
5 units, winter and spring quarters (BAILIFF, DONOHO, GREGERSEN, SELNA, WILLIAMS) (winter) MTWThF 8, 9, 11; (spring) 9
winter, 37, 23, 28, 41, 28; spring, 35

B3. Elementary Spanish (continued).—Texts: Espinosa and Allen, Beginning Spanish, Lessons XLVIII-LXVIII; Allen, Fábulas y Cuentos; Quintero, La Muela del Rey Farfán.
5 units, autumn and spring quarters (BAILIFF, DONOHO, KUSSART, WILLIAMS) (autumn) MTWThF 9; (spring) MTWThF 8, 9, 11
autumn, 37; spring, 33, 20, 24, 34, 14

B21. Second-Year Spanish.—Review of grammar, with abundant practice in conversation and composition. Reading aloud in Spanish, with careful drill in pronunciation. Reading and interpretation of Spanish texts, with a minimum of translation. Conversation in Spanish based on the texts read. Bi-monthly tests in translation and written reproduction of Spanish texts or short stories. Conducted mainly in Spanish.

Composition and conversation (TTh). Text: Espinosa-Allen, Elementary Spanish Grammar, lessons XVI-XLIX.

Reading, pronunciation, and conversation (MWF). Texts: Benavente, El Príncipe que todo lo aprendió en los Libros; Palacio Valdés, La Hermana San Sulpicio.

5 units, autumn and summer quarters (ALLEN) MTWThF 9, 10; (summer, COESTER) MTWThF 11
autumn, 43, 37, 31; summer, 28

B22. Second-Year Spanish (continued).—Composition and conversation (TTh). Texts: Espinosa, Spanish Composition and Conversation, pages 1–97. For grammar review and reference, Espinosa-Allen, Elementary Spanish Grammar. Original exercises in Spanish composition. Final examinations on all regular and irregular verbs and the use of the subjunctive.

Reading, pronunciation, and conversation (MWF). Texts: Martínez Sierra, Teatro de Ensueño; Blasco Ibáñez, La Barraca.

5 units, winter quarter (ALLEN, COESTER) MTWThF 9, 10
winter, 20, 37, 21

B23. Second-Year Spanish (continued).—Composition and conversation (TTh). Oral drill in conversation and the mastery of a correct pronunciation. Short stories, and original compositions. Advanced Spanish grammar. Texts: Espinosa, Spanish Composition and Conversation, pages 97–200.

Reading and interpretation of Spanish texts (TTh). Texts: Martínez Sierra, Canción de Cuna; Coester, Cuentos de la América Española.

5 units, spring quarter (ALLEN, COESTER) MTWThF 9, 10
spring, 21, 39

B26. Second-Year Spanish Scientific Reading.—Intended for engineers. Prerequisite: B3.

3 units, autumn quarter (KLAHN) MWF 11
autumn, 32

B27. Second-Year Spanish Scientific Reading.—Continued.

3 units, winter quarter (KLAHN) MWF 11
winter, 40

B28. Second-Year Spanish Scientific Reading.—Continued.

3 units, spring quarter (KLAHN) MWF 11
spring, 28

B30. Directed Reading.

1 or 2 units per quarter (ALLEN, ESPINOSA, COESTER, BAILIFF)
autumn, 2, 4; winter, 4, 5, 2; spring, 9, 2, 10; summer, 2, 1

B80. Spanish Pronunciation.—Lectures and practical exercises in the elements of Spanish pronunciation. Open to all. This course should be taken by Spanish majors in the first year.

2 units, autumn quarter (ESPINOSA) TTh 10
autumn, 34

II. ADVANCED AND GRADUATE COURSES

B101. Commercial Spanish.—Letter writing and introduction to commercial practice. Prerequisite: B23. (Note: Students electing B101 are expected to take B102.)
3 units, winter quarter (COESTER) MWF 11
winter, 10

B102. Commercial Spanish.—Letter writing continued. Study of commercial documents. Writing of advertisements and circular letters. Prerequisite: B101, or equivalent.
3 units, spring and summer quarters (COESTER)
(spring) MWF 11, (summer) MWF 9
spring, 8; summer, 12

B111. Advanced Spanish Composition and Conversation.—Review of grammar, with reading and interpretation of literary texts. Oral and written reproduction of short stories and literary material. Original exercises in composition. Prerequisites: courses B21, B22, B23.
3 units, autumn quarter (ESPINOSA) MWF 10, 11
autumn, 9, 18

B112. Advanced Spanish Composition and Conversation (continued).—Prerequisite: B111.
3 units, winter quarter (ESPINOSA) MWF 10
winter, 14

B113. Advanced Spanish Composition and Conversation (continued).—Translation into Spanish of select English prose. Prerequisite: B112.
3 units, spring quarter (ESPINOSA) MWF 10
spring, 12

B121. Curso de composición y estilo.—En este curso se estudian algunas obras literarias en prosa para modelos de estilo. Composiciones originales cada semana. Gramática de referencia: Bello-Cuervo, Gramática de la Lengua Castellana. Prerequisite: B113.
3 units, winter and summer quarters (ESPINOSA)
(winter) MWF 9, (summer) MWF 10
winter, 13; summer, 8

B122. Curso de composición y estilo (continuación).
3 units (ESPINOSA) [Not given in 1922–23]

B123. Curso de composición y estilo (continuación).
3 units (ESPINOSA) [Not given in 1922–23]

B130. Spanish Classics.—A study of the principal authors of the classical period. Representative texts will be read of Cervantes, Lope de Vega, Calderón, Alcarón, Tirso de Molina, as well as selections from Ford's A Spanish Anthology. Open to students who have completed courses B21, B22, B23, or their equivalents.
4 units, autumn quarter (ALLEN) MTWF 11
autumn, 14

B140. Spanish Literature.—Outline course. Fitz-Maurice Kelly: Historia de la literatura española. Lectures and recitations. Prerequisite: B130.
3 or 5 units, winter quarter (ALLEN) MWF 11
autumn, 15

B141. Teatro Español Contemporáneo.—(*a*) Breve resumen de la historia del teatro español en el siglo XIX: Rivas, Gutiérrez, Zorrilla, Bretón de los Herreros, Ayala, Echegaray. (*b*) Estudio de los dramáticos contemporáneos, conatención especial a Galdós, Jacinto Benavente,

los Quinteros, Eduardo Marquina y Martínez Sierra. Prerequisites: B21, B22, B23, or their equivalent.
2 or 3 units, summer quarter, 1st half (Espinosa) TWThF 11
summer, 12

B142. Modern Spanish Novel.—A study of the modern Spanish novel and its relation to the development of the novel in France and other European countries. Lectures and collateral readings. Prerequisites: B21, B22, B23, or their equivalents.
3 units (Allen) [Not given in 1922–23]

B143. Early Spanish Lyric Poetry.—A study of the various schools of lyric poets, as the Galacian, the Italian, the National, etc. Prerequisite: B130.
3 units, spring quarter (Allen) MWF 2:05
spring, 10

B144. Modern Spanish Lyrics.—Prerequisites: B21, B22, B23, or their equivalents.
3 units (Allen) [Not given in 1922–23]

B145. Spanish Literature in the Eighteenth Century.
3 units, autumn quarter (Allen) MWF 2:05
autumn, 15

B146. Literatura Española Contemporánea.—Los grandes escritores de la España de hoy. Tendencias literarias; renacimiento intelectual; vida española moderna. Conferencias y estudio.
1½ units, summer quarter, 1st half (Garcia, Solalinde) MWF 3:05
summer, 20

B153. Spanish-American Literature.—General outline. The writings of Spanish Americans will be studied from the point of view of the nationality of the writers and as the product of differing political, social, and geographic conditions. Prerequisite: B23.
3 units, autumn quarter (Coester) MWF 9
winter, 7

B154. Argentine Literature.—The aim of this course is to acquaint the student with the history and mental characteristics of the Argentines through the medium of their own literary productions. Prerequisite: B23.
3 units, spring and summer quarters (Coester)
(spring) MWF 9, (summer) MWF 10
spring, 12; summer, 3

B155. The Modernista Movement in America and Spain.—Rubén Darío, Gutiérrez Nájera, Silva, Chocano and their influence on Spanish lyric poets since 1898. Prerequisite: B111, or equivalent.
3 units (Coester) [Not given in 1922–23]

B170. Cervantes, his life and works.
3 units, winter quarter (Allen) Th 2:05–4:05
winter, 17

B188. Fonética Española.—Conferencias y ejercicios prácticos. Navarro Tomás, Manual de Pronunciación Española.
3 units (Espinosa) [Not given in 1922–23]

B200. Problems of Teaching Spanish.—A consideration of the important questions of Spanish pronunciation, grammar, reading, and literary interpretations, together with a discussion of the general questions of methods of teaching as applied to the teaching of elementary and

advanced Spanish. Pedagogical bibliography and school texts. Practice teaching.
3 units, spring and summer quarters (Espinosa)
(spring) MWF 11, (summer, 1st half) TWThF 2:05
spring, 24; summer, 9

III. PRIMARILY FOR GRADUATES

B201. Introduction to the Study of Old Spanish.—Lectures on old Spanish Phonology and Morphology, with linguistic exercises based on El Cantar de mío Cid. Ford, Old Spanish Readings.
3 units, autumn quarter (Espinosa) MWF 9
autumn, 13

B202. Spanish Historical Grammar.—Lectures and study of Old Spanish texts.
1 unit, winter quarter (Espinosa) Th 10

B204. Old Spanish Literature.—Spanish literature from the earliest times to the beginning of the fifteenth century. Lectures, reading of texts, and assigned topics.
3 units (Allen) [Not given in 1922–23]

B205. Old Spanish Ballads.
3 units, winter quarter (Espinosa) T 2:05–4:05
winter, 8

B240. Graduate Thesis.
3 to 5 units per quarter (Allen, Espinosa)
autumn, 2, 4; winter, 4, 5; spring, 3, 3; summer, 2

B241. Origins of Spanish Drama.—A history of the drama from the earliest times to its full development with Lope de Vega. Lectures and collateral reading.
3 units (Allen) [Not given in 1922–23]

B250. Spanish Seminary.—Old Spanish Ballads. Lectures and investigations on special topics.
3 units, spring quarter (Allen) T 2:05–4:05
spring, 15

B251. Calderón.—Lectures and assigned topics.
3 units, spring quarter (Allen) F 3:05–5:05

B252. Lope de Vega.—Lectures and assigned topics.
3 units (Allen) [Not given in 1922–23]

B253. The Classical Dramatists.—Tirso de Molina, Ruiz de Alarcón Rojas Zorrilla and Morelò.
3 units (Allen) [Not given in 1922–23]

C. Italian

I. ELEMENTARY AND INTERMEDIATE COURSES

C1. Elementary Italian.—Wilkins, First Italian Book; Wilkins, Italia.
5 units, autumn quarter (Anderson) MTWThF 8
autumn, 24

C2. Elementary Italian (continued).—Grandgent's Italian Grammar. Conversation. Wilkins and Altrocchi, Italian Short Stories. Goggio, Due Commedie Moderne. Prerequisite: C1, or equivalent.
5 units, winter quarter (Anderson) MTWThF 8
winter, 20

C3. Elementary Italian (continued).—Review of Grammar. Composition and Conversation. Goldoni, La Locandiera. Manzoni, I Promessi Sposi (edit. Geddes and Wilkins). Prerequisite: C2, or equivalent.
5 units, spring quarter (ANDERSON) MTWThF 8
spring, 14

C21. Second-Year Italian.—Review of grammar. Composition and conversation. Reading of selected prose and poetry of the nineteenth and twentieth centuries, with a minimum of translation and particular attention to pronunciation. Collateral reading and reports. Prerequisite: C3, or equivalent.
3 units, autumn quarter (SMITH) [Not given in 1922–23]

C22. Second-Year Italian (continued).—Prerequisite: C21, or equivalent.
3 units, winter quarter (SMITH) [Not given in 1922–23]

C23. Second-Year Italian (continued).—Prerequisite: C22, or equivalent.
3 units, spring quarter (SMITH) [Not given in 1922–23]

C30. Directed Reading.
spring quarter (ANDERSON)
spring, 4

II. ADVANCED AND GRADUATE COURSES

C150. Dante and the Divine Comedy (in English).—Reading and interpretation of the Divine Comedy (in translation), lectures on Dante and the Divine Comedy, and the principal problems of medieval life and thought reflected in the poem. Outside reading and reports. Open to juniors and seniors in all departments.
3 units, winter quarter (JOHNSTON) MWF 9
winter, 7

C151. Advanced Italian.—Dante, La Divina Commedia. Study and interpretation of the text; discussion of the literary problems of the poem.
4 units, autumn quarter (JOHNSTON) MWF 2:05
autumn, 13

C152. Advanced Italian (continued).
4 units, winter quarter (JOHNSTON) MWF 2:05

C153. Advanced Italian (continued).
4 units, spring quarter (ANDERSON)
spring, 1

D. PORTUGUESE

ELEMENTARY COURSES

D1. Elementary Portuguese.—Drill on pronunciation. Elements of grammar. Reading of easy texts.
5 units, autumn quarter [Not given in 1922–23]

D2. Elementary Portuguese (continued).—Grammar. Composition. Conversation. Reading. Prerequisite: D1, or equivalent.
5 units, winter quarter [Not given in 1922–23]

D3. Elementary Portuguese (continued).—Prerequisite: D2, or equivalent.
5 units, spring quarter [Not given in 1922–23]

E. General Romance Philology

PRIMARILY FOR GRADUATES

E205. Bibliography and Methods of Romanic Philology.—A brief description of the field of Romanic Philology and of the principal books which deal with it. A discussion of the technique of philological studies.
1 unit (Anderson) [Not given in 1922–23]

E210. Introduction to the study of Old Provencal.—Reading of selected passages from Appel's Provenzalische Chrestomathie, with a study of Old Provencal Phonology and Morphology.
3 units (Johnston) [Not given in 1922–23]

E211. Romance Versification.—The fundamental principles of Romance verse structure, with particular attention to French and Spanish, lectures and practical exercises.
3 units, spring quarter (Espinosa) TTh 2:05–3:30
spring, 15

E221. Petronius. [See course B138 in the Department of Classical Literature.]

SLAVIC

Henry Lanz, Assistant in Instruction.

Slavic Literature

[The following courses do not require a knowledge of any language other than English.]

C1. Slavic Literature.—It is the object of this course to give a brief account of the folklore and literature of Slavic nations such as Bohemia, Servia, Bulgaria, and Poland, in connection with their history and their religious development. Outside reading and reports.
2 units, autumn and spring quarters (Lanz) TTh 9
autumn, 31; winter, 13; summer, 23

C2. History of Russian Literature.—The development of literature in Russia since the early Biliny-period to the death of Gogol (1852). Special attention will be given throughout to the relations of Russian literature to social and political conditions, philosophy, and religion. Lectures and reading.
3 units, autumn and spring quarters (Lanz) MWF 11
autumn, 16; spring, 20

C3. History of Russian Literature.—(continuation of C2).—The modern Russian literature, covering the works of Turgenev, Goncharov, Dostoievsky, Tolstoy, and others. Mutual dependence between Russia and West-European literatures will be particularly emphasized.
3 units, winter and summer quarters MWF 11

C100. Leo Tolstoy.—His life and work.
2 units, autumn and spring quarters (Lanz) TTh 11
winter, 43; summer, 35

C101. Theodore Dostoievsky.—His life and work.
2 units, winter and summer quarters TTh 11
spring, 46, 1

Slavic Languages

A1. Elementary Russian.—It is the object of this course to put the students in possession of the elements of the Russian language. Beginning with a study of the alphabet, it covers the course in morphology, syntax, simple conversation, and reading of the easy Russian texts (short stories of Leo Tolstoy). Bondar, Simplified Russian Method.
4 units, autumn quarter (Lanz) MTThF 8
autumn, 5

A2. Elementary Russian (continued).—The study of the aspects of the verbs and advanced practice in conversation and reading.
4 units, winter quarter (Lanz) MTThF 8
winter, 3

A3. Elementary Russian (continued.)—Thorough review of grammar; reading and conversation (Bondar).
4 units, spring quarter (Lanz) MTThF 8
spring, 2

A4. Commercial Russian.—The object of this course is merely practical; it is intended to put the students in possession of the commercial vocabulary and make them able to transact business in Russian language. Special attention will be given to the composition of business letters. Prerequisites: Russian A1, A2, A3.
4 units, summer quarter (Lanz) MTThF 8
summer, 1

A5. Russian Conversation.
autumn and winter quarters By arrangement
autumn, 1; winter, 4; summer, 3

A21. Second-Year Russian.—Reading of Pushkin and Turgenev. Practice in conversation and composition on the basis of the material read. Forbes, Russian Grammar.
3 units, autumn quarter (Lanz) MWF 9
autumn, 2

A22. Second Year Russian.—Chekhov, Stories.
3 units, winter quarter (Lanz) MWF 9

A23. Second-Year Russian.—Reading of modern prose and poetry.
3 units, spring quarter (Lanz) MWF 9
winter, 1

A131. Third-Year Russian.—Individual work.
3 units, autumn quarter (Lanz) By arrangement
spring, 1

A132. Third-Year Russian.—Individual work.
3 units, winter quarter (Lanz) By arrangement
winter, 2

A133. Third-Year Russian.—Individual work.
3 units, spring quarter (Lanz) By arrangement
spring, 1

ZOOLOGY

Charles Henry Gilbert, Harold Heath, George Clinton Price, Professors.
Walter Kenrick Fisher, John Otterbein Snyder, Associate Professors.
Edwin Chapin Starks, Assistant Professor.

[**General Biology.**—See under Biology, p. 14.]

(Courses 1 and 2 may be undertaken without previous preparation in Zoology.)

1. General Zoology.—A laboratory course involving the study of representatives of the principal groups of animals, accompanied by lectures on their structure and classification, and on the general laws of biology which they illustrate.

5 units, autumn quarter (PRICE); winter quarter (STARKS); summer quarter at Hopkins Marine Station (TAYLOR) MTWThF
autumn, 33

2. The Vertebrates.—A general course in the classification of vertebrate animals, with studies in their habits and the geographical distribution of species. The course is largely devoted to birds. It includes field excursions, and observations of live animals in the laboratory.

5 units, spring quarter (SNYDER) MTWThF 1:15–3:45
spring, 8

100. The Classification and Ecology of Marine Invertebrates.—The object of this course is to give the student the widest possible acquaintance with the animals which live along shore and in the plankton of Monterey Bay—their classification, associations, distribution, and habits.

5 units, summer quarter (Hopkins Marine Station, Pacific Grove) (FISHER) Lab. MTWThF

101. The Invertebrates.—This course, following course 1, is designed to give the student a broader knowledge of the morphology and relationships of the more important invertebrate groups.

5 units, autumn quarter (HEATH) MTWThF
autumn, 9

102. Invertebrate Embryology.—A study of segmentation, the formation of the germ layers, and certain phases of the later development, including the significance of larval forms and the relationships of the principal phyla. Must be preceded by courses 1 and 101.

3 units, spring quarter (HEATH)
spring, 3

200. Advanced Work on Invertebrates.—The original investigation of problems connected with anatomy and embryology of invertebrates.

3 to 5 units, autumn, winter, and spring quarters (HEATH) By arrangement
spring, 1

201. Research Work on Invertebrates.—Prosecution of special studies with reference to the classification, anatomy, and life history of invertebrates.

autumn, winter, spring, and summer quarters (at Hopkins Marine Station, Pacific Grove) (FISHER) By arrangement

103. Advanced Vertebrates.—Advanced studies in systematic vertebrate zoology, including practice in museum methods, in field observations, and in the collection and preparation of specimens with data. To be preceded by course 2.

3 to 5 units, spring quarter (SNYDER) MTWThF

104. Comparative Anatomy of the Vertebrates.—A detailed examination of vertebrate morphology, including dissection of representatives of the several classes of vertebrates, with comparative studies in vertebrate osteology, the nervous and circulatory systems. To be preceded by course 1.

5 units, winter quarter (SNYDER); spring quarter (STARKS) MTWThF 1:15–4:15

105. Mammalian Anatomy.—For students who have had course 104 or its equivalent.
3 to 5 units, autumn quarter (Snyder, Starks) MTWThF 1:15–4:15
autumn, 5; spring, 1

106. Vertebrate Embryology.—The development of the chick through the first three days of incubation, and the later stages in the development of the mammal. To be preceded by course 1.
5 units, winter and spring quarters (Price) MTWThF
spring, 39

106a. Advanced Vertebrate Embryology.
autumn and spring quarters (Price)
autumn, 1; spring, 1

107. Primitive Chordates.—Amphioxus, the tunicates, and the lampreys. Open to students who have had courses 104 and 106.
5 units, autumn quarter (Starks) Forenoon hours by arrangement

108. Fishes.—An examination of the larger groups of fishes and practical work in the discrimination of species. To be preceded by course 107.
5 units, autumn quarter (Starks) Forenoon hours by arrangement
autumn, 1

202. Advanced Ichthyology.—Special problems in the morphology and classification of fishes will be set for advanced students prepared for such work.
2 to 5 units, autumn, winter, and spring quarters (Starks, Snyder) By arrangement
autumn, 1; winter, 1

203. Research and Special Courses.
autumn and winter quarters (Snyder, Heath)
autumn, 1, 2, 1; winter, 1

109. Journal Club.—Open to seniors and graduate students.
4 units, winter quarter (Gilbert) By arrangement

Major students must before graduation complete courses 1, 101, 104, 106, and 109; either 2, 100, or 108, or Entomology 3; course 1*a* or 1*b* in Entomology, and courses 1 or 2 or 3 in Botany. Substitution of other courses is permitted in special cases. Course 1, General Zoology, with at least one other five-unit course in Zoology is to be completed by major students in this department before their junior year.

Work for graduate and special students will be laid out in accordance with their individual needs and preferences.

Students who look forward to the study of medicine may take Zoology for their major subject and receive the A.B. degree at the close of a four years' course which shall also contain the first year in medicine. The following courses in Zoology will be required of such students: Zoology 1, 5 units; Invertebrate Morphology, Mammalian Anatomy, or Primitive Chordates, 5 units; Comparative Anatomy of the Vertebrates, 5 units; Vertebrate Embryology, 5 units.

The Teacher's Recommendation.—The department recommendation for the High School Teacher's Certificate in Zoology requires the completion of the following courses: Zoology as a major; Zoology 1 (General), 5 units; 100 or 101 (Invertebrates), 5 units; 2 (Vertebrates), 5 units; 104 (Comparative Anatomy of Vertebrates), 5 units; 106 (Vertebrate Embryology), 5 units; Entomology 3, 5 units. Total, 35 units.

Zoology as a minor: Zoology 1, 2 or 100, 101, 104; Entomology, 5 units. Total, 25 units.

The Zoological Collections

The Zoological Museum contains a very full representation of the fishes of North America, and includes among others a valuable series of the deep-water fishes of the Pacific, and large collections from the West Indies, the Hawaiian Islands, Bering Sea, Japan, the coasts of Mexico and Central America, and the Galapágos Islands. The museum contains also a large representation of the reptiles, batrachians, birds, and mammals of California and adjoining States. The collection of marine invertebrates is rich in Pacific echinoderms and crustacea, and contains a good working nucleus in the other principal groups. The series of deep-sea forms is especially valuable.

Laboratory Fees.—$1 each quarter per unit of course.

ENTOMOLOGY

Rennie Wilbur Doane, Associate Professor.
Gordon Floyd Ferris, Mary Isabel McCracken, Assistant Professors.

1a. Elementary Entomology.—An introduction to the study of entomology intended to give the student a general knowledge of the structure, development, and classification of the more important orders of insects. Laboratory work with occasional lectures. Open to all students.

5 units, autumn and *spring quarters (Ferris, McCracken) forenoons
autumn, 19; winter, 22; spring, 50; summer, 17

1b. Elementary Entomology.—The minor orders and the internal anatomy of insects are dealt with in this course. To be preceded by course 1*a* of which it is a continuation. Intended chiefly for entomology majors.

5 units, winter quarter (Ferris, McCracken) forenoons
autumn, 1; winter, 9; spring, 4; summer, 5

2. Morphology.—This course includes a study of insect structures from the point of view of their adaptations, and of taxonomy. Open to students who have had 1*a*.

3 units, spring quarter (McCracken) MWF forenoons
spring, 5

3. Classification of Insects.—This course includes a study of insects in the field and the collection and classification of representatives of as many families as possible. The purpose of the course is to increase the student's knowledge of the insect fauna of this region and to acquaint him with the aims and the methods of systematic work. Should be preceded by courses 1*a* and 2.

5 units, spring and *summer quarters (McCracken) forenoons
winter, 1; spring, 16; summer, 4

4. General Entomology and Insect Adaptations.—A course of lectures and demonstrations. Open to all students.

2 units, autumn quarter (Doane) Lec. TTh 9
autumn, 37

5. Insects and Disease.—A discussion of the insects that cause or disseminate some of the diseases in man and the domestic animals. Lectures and demonstrations. Open to students having some previous training in biology.

2 units, winter quarter (Doane) TTh 9
winter, 74

100. Honey-bee and Apiculture.—Study of the honey-bee; its structure and activities and an introduction to practical bee-keeping through work in a small apiary. Students should consult instructor before registering in this course.

3 units, spring and *summer quarters (McCracken) TTh 9; TTh afternoons
spring, 12; summer, 2

101. Economic Entomology: Coccidae (the Scale Insects).—A study of the classification, general biology, and economic relations of the scale insects, with particular attention to the more important injurious ones of the Pacific Coast. Field, laboratory, and bibliographic work, with occasional lectures.

3 units, autumn quarter (Ferris) MWF afternoons
autumn, 4

102. Technique.—A course primarily in elementary histological technique and including a limited study of the fundamental tissues, intended especially for Entomology and Zoology majors.

2 to 5 units, winter and *spring quarters (Ferris) By arrangement
winter, 7

103. Economic Entomology: Forest Insects.—A study of the insect enemies of forest and shade trees. The course includes field, laboratory, and bibliographic work.

3 units, autumn quarter (Doane) MWF afternoons
autumn, 4

104. Economic Entomology: Orchard and Garden Insects.—A study of the principal injurious and beneficial insects of the orchard and garden. Includes field, laboratory, and bibliographic work, and occasional lectures. Should be preceded by course 101.

3 units, spring quarter (Doane) MWF afternoons

105. Economic Entomology: Principles and Practice.—A course of lectures relating to the development of economic entomology and the methods of controlling some of the more important insect pests.

2 units, spring quarter (Doane) TTh 9

106. Principles of Nomenclature.—A series of lectures dealing with the principles of biological nomenclature and intended to meet the needs of students from any of the biological departments.

1 unit, spring quarter (Ferris) W 4
spring, 9

107. Advanced Entomology.—Open only to upperclassmen who are prepared to do advanced economic, systematic, or biologic work. Laboratory and field work.

autumn, winter, spring, and summer quarters (Doane, McCracken, Ferris) By arrangement
autumn, 3, 4; winter, 1, 1, 2; spring, 2, 8, 16; summer, 1

108. Animal Genetics.—Discussion and demonstrations of the principles of heredity underlying modern practices in improvement of animals.

2 units, winter quarter (McCracken) Lec. TTh 11
winter, 11

109. Seminar in Genetics.—Open to senior and graduate students.

2 units, spring quarter (McCracken) By arrangement
spring, 2

110. Seminar in Entomology.—Open to senior and graduate students.

(Department Faculty) By arrangement

160. Bionomics.

2 units, winter quarter (Doane)
winter, 101

201. Research.—Primarily for graduate students who are prepared to do research work in systematic, biologic, or economic entomology.
autumn, winter, spring, and summer quarters (DOANE, MCCRACKEN, FERRIS) By arrangement
winter, 1; spring, 2; summer, 5

Major students in Entomology must obtain before graduation forty-five units of credit in Entomology, and credit for course 1 in Zoology, and course 1 in Botany.

The ENTOMOLOGICAL COLLECTIONS contain authoritatively determined specimens, accessible for comparison, in all of the more important insect orders, and include many sets of specimens illustrating the development and habits of insects. These include the most important existing collection of North American Mallophaga, the largest collection extant of Anoplura, one of the largest and most important collections of Coccidae (scale insects), and valuable series of specimens from the Galapágos Islands, Samoa, and the Philippine Islands.

LABORATORY FEES.—$3.50 for course 102. $2.50 per quarter for other laboratory courses.

MUSEUM AND ART GALLERY

LELAND STANFORD JUNIOR MUSEUM

PEDRO J. LEMOS, Director.

In 1880, Leland Stanford Junior, then eleven years of age, accompanied his parents on a trip through Europe, and collected numerous mementos of the places visited. In 1883, on a second visit, he began to pursue this object more ambitiously, and finally with the idea of establishing a museum. The Leland Stanford Junior Museum was designed by Mrs. Stanford as a memorial to perpetuate this idea, and the various collections are mainly her gift to the Museum.

The collection made by Leland Stanford Junior between 1880 and 1884 has been placed in two rooms, and in one room his own arrangement is reproduced in detail. In the room adjoining are found mementos of his early life. These two rooms contain especially Egyptian bronzes, Tanagra figurines, Greek and Roman glass, armor, mosaics, Sèvres and Dresden ware, and the like.

The Stanford Memorial Room contains collections of personal belongings pertaining to the founders of the University. Added to these are collections connected with the early days of the University, views of buildings in construction, and details of the mosaics used in the Memorial Church.

The vestibule and upper corridor are devoted principally to copies of the old masters.

The Di Cesnola Collection contains five thousand pieces of Greek and Roman pottery and glass from the Island of Cyprus.

Another room contains the famous historical relic, *The Governor Stanford,* the first locomotive used on the Central Pacific Railroad, in 1864.

The American Collection is made up of mound relics, Indian baskets, Acoma ware, utensils, Alaskan canoes, totem poles, etc. In this room is also a display of material of the stone age purchased by Mrs. Stanford in Denmark. The center case in this room contains practically all the implements extant of the old Mission Dolores, presented by Don Pablo Vasquez, whose father was the last major-domo of the Mission. Included in the Mission collection are some extremely rare relics of Father Junipero Serra and the Carmel and Santa Barbara Missions.

The Ikeda Chinese and Japanese collection, purchased by Mrs. Stanford in 1904, comprises rare art material from the Orient.

In the Chinese and Japanese room there is exhibited a collection of bronzes, arms, china, lacquer, cabinets, musical instruments, rich embroideries, and specimens of wood-carving, including the Imperial bedroom set, a marvel in wood-carving and inlaid work; also the famous de Long Collection of Japanese rarities.

The Japanese collection, purchased by Mrs. Stanford in 1902, consists of cloisonné, Satsuma, porcelain, embroideries, Buddhistic images and ivory carvings, and includes a large bronze Koro, over 150 years old. The Corean collection, the gift of Mr. Timothy Hopkins, contains costumes, household goods, cabinets, screens, etc.

One room contains the Anna Lathrop Hewes Collection of paintings, statuary, mosaic, etc. Ceramics collected by Mrs. Stanford include Sévres, Dresden, Royal Berlin, Persian, Pompadour crystal, Bohemian, and numerous other wares.

An adjoining room contains the collection of Venetian glassware, mirrors and mosaic art pieces, presented by Messrs. Salviati & Camerino, of Venice, Italy, and comprising almost every conceivable pattern.

The mosaic exhibit, which was made with the personal coöperation of Mr. Zampatto, shows the structural evolution of mosaic from the fusing of the glass to various finished pieces.

THOMAS WELTON STANFORD ART GALLERY

PEDRO J. LEMOS, Director.

The THOMAS WELTON STANFORD ART GALLERY is composed of four galleries designed for the exhibition of paintings and other works of art.

In the main galleries the collection of paintings donated by Thomas Welton Stanford is placed. Among these are pictures by Minderhout Hobbema, James Giles, R.S.A.; John Frederick Herring, Lienur, Van der Houten, Francis Snyders, W. J. Laidley, David Bates, John Yarley, Juliun M. Price, J. W. Ready, William Melby, James E. Meadows, Elijah Walton, F.G.S.; W. Henry, W. Koek-Koek, E. Wake Cook, T. R. Miles, Sr., John Glover, Herr Schnars-Alquist, Louis Buvelot, William Hart, William Shiels, R.S.A.; S. Bird, Patrick Nasmyth, Emil Bayard, Gerard Lairesse, C. Wimmer, Salvator Rosa, G. Koken, John Weenix, Bachman, Kobell, Jr., Charles Stuart, Heinrich Rasch, Melchoir Hondecooter, Marie Angelica Kaufman, Ten Kate, George Earl, Guardabassi, E. G. Lewis, and E. C. Curtiss.

The rear gallery has been planned for the exhibition of collections of paintings, etchings, and sculpture from eastern and foreign art centers. These exhibitions are announced from time to time as they are received.

LECTURES AND DEBATES

RAYMOND FRED WEST MEMORIAL LECTURES

In 1910 Mr. and Mrs. Fred West, of Seattle, Washington, presented to the University, in memory of their son, Raymond Fred West, a student of the University who died before the completion of his college course, the sum of ten thousand dollars, to be held as a fund in perpetual trust, for the establishment of a lectureship on a plan similar to the Dudleian Lectures at Harvard University.

"It is our wish that such lectures shall not form part of the usual college or university course, nor shall they be delivered by any professor or instructor in active service in the institution. Such lecturer may be a clergyman or a layman, a member of any ecclesiastical organization, or of none, but he should be a man of the highest personal character and of superior intellectual endowment. He shall be chosen by the Faculty and the Board of Trustees of said University in such manner as the said Board of Trustees may determine, but the appointment in any case shall be made at least six months before the delivery of said lectures. . . . 'The course of lectures shall be known as the "Raymond Fred West Memorial Lectures on Immortality, Human Conduct, and Human Destiny".'"

The following general plan has been adopted by the University: The lectures are to be delivered in alternate years; the lecturer is to give at least three lectures; the lectures are to be published in book form within two years after delivery, the lecturer to have the option of publishing them himself, in which case the University will purchase a hundred copies, or of having the University publish them, in which case it will retain the copyright (in any case the manuscript of the lecturer is to be filed in the University archives); the honorarium to be decided in each case by the Board of Trustees, and unless otherwise ordered the entire earnings of the fund for the two years to be devoted to honorariums and to the purpose of publication; the lecturer is to be nominated by the President with the approval of the Advisory Board and the consent and ratification of the Board of Trustees.

These lectures have been given by Charles Edward Jefferson, Samuel McChord Crothers, Hastings Rashdall, John Dewey, Charles Lewis Slattery, Henry Osborn Taylor, and Irving Babbitt. The general subject of the last series, given by Irving Babbitt April 18, 19, 20, 21, 1922, was "The Ethical Basis of Democracy."

DEBATES

Intercollegiate debates, under the auspices of the Associated Students of the University, are held each year with the University of California, the University of Southern California, the University of Washington, and the University of Oregon. A local public speaking contest, in which speaking in the extemporaneous style is encouraged, usually occurs during the Spring Quarter. The Associated Students of the University send a representative to take part in the Annual Pacific Coast Oratorical and Extemporaneous Contests held under the auspices of the newly formed Pacific Coast Forensic Conference. Stanford Freshmen meet California University Freshmen in dual debate in the Winter or Spring Quarter.

Debate societies within the University are three in number, Euphronia and Nestoria Societies composed of men, and Wranglers Society composed of women. These societies carry on debates among themselves and with similar societies in other institutions in the Bay region. Interest is being aroused in women's debate as an activity, and it is probable that women's debates with California and Mills College will be arranged in the near future.

Debate Trophies

Numerous permanent trophies have been offered for debating during the past year. Euphronia Society is the donor of a loving cup to be awarded to the winner in a high school public speaking contest, conducted by the Society during the Spring Quarter. Euphronia and Nestoria Societies have joined to provide a cup for the annual Public Speaking Contest among the students of the University. Delta Theta Phi, the new law fraternity, signalized its advent to the Stanford campus by making available a similar cup for the winners of the strongly-contested annual Nestoria-Euphronia-Wranglers' debate.

In March, 1923, Stanford University became a member of the newly formed Pacific Coast Forensic Conference, the purpose of which is to foster forensic endeavor among the several member institutions. The members of the Conference are: The University of British Columbia, the University of Washington, Washington State College, the University of Idaho, Whitman College, Reed College, the University of Oregon, Oregon Agricultural College, the University of California, Stanford University, and the University of Southern California.

Stanford-California Debate

On the evening of November 6, 1922, Stanford University met the University of California and the University of Southern California in a triangular debate on the question:

"Resolved that the proposed State Constitutional Amendment No. 19, relating to state control of water and power in California, should be enacted into law." The debate was held on the eve of the state wide referendum election to decide the fate of the proposed measure. The Stanford affirmative team, composed of Robert Ernest Lewis, '23, and John Hall, '25, met the University of Southern California negative debaters, Roy Reames, '23, and Louis D'Elia, '23, in the Assembly Hall, Stanford University. The judges were: Associate Justice William P. Lawlor, of the Supreme Court, Reverend George A. Pollard, of the First Baptist Church of Palo Alto, and Professor Arnold Perstein, of the University of California. The debate was won by Stanford University.

The California-Stanford teams met in the Scottish Rite Auditorium, San Francisco. Edward Durley Landels, '23, and Mathew Tobriner, '24, upheld the Stanford negative against B. S. Porter, '23, and B. E. Witkin, '25, for California. In the absence of two judges, Professor Alan Nichols of the University of Southern California rendered the decision, which was in favor of California.

Stanford-Washington-Oregon Debate

"Resolved that the federal government should legalize the manufacture and sale of light wines and beer" was the question in the Pacific Coast League Debates held on March 2, 1923. Emmet McCaffery, '24, (replacing John Hall, '25, who became ill the week prior to the debate), and Thomas Andrew Bailey, '24, debated the Oregon affirmative team composed of Ralph Bailey and Charles Lamb, on the Oregon home platform. The judges, Fred Lockley of the Oregon Journal, H. H. Hurtman of the Safety Council of Portland, and Charles Lenon, attorney of Portland, rendered a unanimous decision in favor of Stanford.

The Stanford affirmative team, composed of Claude Russell Minard, '23, and Robert Ernest Lewis, '23, debated Claude J. Woodworth and Wendell Earl Edberg, of Washington, in the Little Theater, Stanford University. The judges were J. R. Welch of the Superior Court, San Jose, Robert Newton Lynch, vice-president and manager of the San Francisco Chamber of Commerce, and Professor Arnold Perstein, of the University of California. The decision was 2 to 1 in favor of Stanford.

Joffre Debate

The Medaille Joffre, presented by Baron de Coubertin, for the purpose of encouraging the study and discussion, in California, of French history and politics, is awarded the student who, in the opinion of the judges,

proves himself the best debater in a contest held for that purpose between Stanford University and the University of California.

Under the rules of the contest, the general subject for discussion in 1922–23, "French foreign policy on the continent since the Treaty of Versailles," was made known in January, 1923. The debate was held on the evening of Friday, April 13th, in the Assembly Hall, Stanford University. The particular phase of the question discussed was announced to the debaters two hours before the time set for the debate. The question was, "Advance a solution for the Franco-German problem." Stanford University was represented by Bertrand Lewis Comparet, '24, Mathew Oscar Tobriner, '24, and Thomas Andrew Bailey, '24; the University of California by Arthur E. Murphy, '23, Harold L. Reynolds, '24, and Paul L. Offenhiser, '23. The judges were John E. Richards, Associate Justice, District Court of Appeal; E. J. Tobin, president Hibernia Bank, San Francisco; and Tom Peete Cross, professor of English, University of Chicago. The medal was awarded to Bertrand Comparet, of Stanford University. Honorable mention was given to Mathew Tobriner, of Stanford, who won second place, and Arthur Murphy of California, who won third place.

Stanford-California Freshman Debate

Debating the question, "Resolved that California and Stanford should restrict their athletic competition to contests with each other," Stanford and California freshmen teams met on the evening of April 18. The Stanford affirmative team, composed of Walter Odemar and William Leslie Gosslin, defeated the California negative team by a two to one decision. The Stanford negative team, composed of Stanley Weigel and Burnham Beckwith, won unanimously at Berkeley.

Intersociety Debate

In competition with debating societies of the Peninsular and Bay Regions, Euphronia and Nestoria debating societies won the league championship. The two societies then met in the final contest, in which Bertram Levit, '24, and Percy Spencer, '25, of Euphronia, were winners over Ernest McCaffery, '24, and Robert Lewis, '23, of Nestoria, by a two to one vote. The question debated was: "Resolved that the issuance of tax-exempt securities should be prohibited in the United States."

Later a Euphronia team composed of Stanley Weigel, '26, and Percy Spencer, '25, met the Wranglers Society team composed of Grace Strobel, '24, and Elsa Barber, '25, and debating on the affirmative of the question: "Resolved, that America should enter the World Court," won

by a two to one decision and became possessors for one year of the Delta Theta Phi cup.

PUBLIC SPEAKING CONTEST

In the annual public speaking contest held May 15, in the Little Theater, Robert E. Lewis, speaking on the subject, "The Constitution and Free Speech," won first place and the Nestoria-Euphronia silver cup. James Anglin, '23, won second, and Knox Miller, '23, third. Mr. Lewis represented the University at the Oratorical Contest held in Los Angeles under the auspices of the Southern California Citizens' Committee, on June first.

DEGREES CONFERRED

([1]October 6, 1922; [2]January 5, 1923; [3]April 6, 1923, June 19, 1923.)

BACHELOR OF ARTS

APPLIED MATHEMATICS

[2]Theodor Siegumfeldt Jacobsen
With distinction

BOTANY

Rimo Charles Bacigalupi
With distinction
[3]Margaret Helen Duff
[2]Lake S. Gill
Marjorie Ruth Swabey

CHEMISTRY

[3]Sophie deAberle
Charles Wentworth Barnett
[2]Chester Oklahoma Blackburn
Cecil Robert Brolyer
[1]Faw Yap Chuck
Elton Fred Cornell
With distinction
[1]Kenneth Newton Cundall
William Unger Ellis
John Field, II
[1]Kenneth A. Gagos
[1]Harry Bernard Gidal
Charles Arata Grondona
[3]Young D. Hahn
Mildred Jessica Hall
Edwin Loring Harris
[3]John Raymond Hawes
Henry Hikoichi Hirata
John Mears Horner
Albert J. Igo
[1]Gordon Henry Ira
Kenneth K. Kelley
With distinction
Blanche Kengla
Raymond Irvin King
Gustaf Moses Liljenstein
Theodore Malvin Matson
[3]Leona Minna Mayer
With distinction
Wayne Locklin Merrill
Warren Whittier Nicholas
[3]Russell Alderson Pearson
With distinction
[1]Dorothy Duncan Pierce
Thomas Kemp Sloan
Melvin Ralph Somers
Henry Franklin Sproull
Francis Samuel Stewart
Franz Sturm
Victor Ellsworth Thomas
[3]Clinton Schenck Wainscott
With great distinction
Theodore Roosevelt Walther
Mary Isabel Wocker

CLASSICAL LITERATURE

Francis Case Hutchens
With great distinction
Alice Madeline Lechten
Agnes Martha North
Katherine Adam Ward

ECONOMICS

Arthur Austin
Edwin Rexford Barnes
With distinction
Frank Stewart Bernstein
Paul Henry Beuter
Birt Griffin Blackman
With distinction
[3]Anthony Brazil
[2]Homer Waldo Brown
William Howard Brown
[3]George Hickman Bruce
Robert Gillis Bundy
With great distinction
Virginia Burks
With distinction
[1]Joseph Paul Burns
John Hamilton Burroughs
Roy William Carver
[1]Marvin George Chamberlain
[3]Paul Cuddeback Claflin
Aaron David Cohan
With distinction
Albert W. Cupid
James M. Davies
[1]Jean Joseph Delpech
[3]Gerald J. Edwards
Clarence Eugene Eskew
Wardwell Devore Evans
Curtis Lane Falk
[1]John Gilbert Fall
[1]Will Mahlon Fawcett
With distinction
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1922–23

FELLOWS

Thomas Welton Stanford Fellow in Psychic Research

John Edgar Coover ..... Stanford University
A.B., Stanford, 1904, A.M., 1905, Ph.D., 1912

Buckel Fellow in Education

Albert Sydney Raubenheimer ..... George, South Africa
A.M., Columbia, 1921

Cubberley Fellow in School Administration

Ralph Waldo Swetman ..... Ellensburg, Wn.
A.M., Columbia, 1917

Lionel Remond Lenox Fellow in Chemistry

Oliver Wolcott Johnson ..... Los Angeles
A.B., Stanford, 1921, Engineer, 1922

University Fellows

Ernest Herman Brunquist (Physiology) ..... Palo Alto
A.M., Michigan, 1920

William Leroy Burdick (Chemistry) ..... Palo Alto
A.B., Kansas, 1909, A.M., 1912; Ph.D., Stanford, 1923

Rowland Hill Harvey (History) ..... Chicago, Ill.
A.M., Southern California, 1920

Paul Francis Kerr (Geology) ..... Stanford University
B.S., Occidental, 1919; Ph.D., Stanford, 1923

Leandro Pareja (Chemistry) ..... Curco, Peru
Curco University

Laura Virginia Schwartz (English) ..... Honolulu, T. H.
A.B., College of the Pacific, 1920; A.M., Stanford, 1921

Frances Elizabeth Willis (Political Science) ..... Redlands
A.B., Stanford, 1920, Ph.D., 1923

Teaching Fellows in Chemistry

Ruth Vivia Fulton ..... Vancouver, Canada
M.A., British Columbia, 1919

Alanson Wood McDermoth ..... Palo Alto
A.B., Stanford, 1920, A.M., 1921

Laurence Francis Pratt ..... North Weymouth, Mass.
B.S., Massachusetts Agricultural College, 1921

Fellows in Food Research

Edith Hawley ..... Elk City, Kansas
A.M., Columbia, 1920

James Noble Holsen ..... Sumner, Illinois
A.M., Indiana, 1920

Olaf Selmer Rask.....Kalispell, Montana
B.A., Minnesota, 1916, B.S., 1917

William Blair Stewart.....Portland, Oregon
B.A., Reed, 1921

Conrad Payling Wright.....London, England
A.B., Oxford, 1920

FELLOW IN GEOLOGY

Ralph Daniel Reed.....Howard, Ohio
B.S., Hiram, 1913

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A.B., Stanford, 1917

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A.B., Doane, 1914

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B.S., State College of Washington, 1922

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A.B., Vassar, 1919

THE WILLIAM IRVIN WEAVER SCHOLAR

Francis Albert Smith (Chemistry).....Palo Alto
A.B., Stanford, 1922, A.M., 1923

THE BERTHA HYDE BRALY SCHOLAR

[15]Violet May Balcomb.....Palo Alto

THE COLONIAL DAMES SCHOLAR

[3]Stella Dorothy Shepard (History).....San Jose

The E. C. Converse Scholars

Thomas Andrew Bailey (Classical Literature) ..... San Jose
Lucas Belenky (Lower Division) ..... Zotolanshu, Russia
Helen Katherine Broughall (Lower Division) ..... Salt Lake City, Utah
Ernest Sylvan Greene (Lower Division) ..... Campbell
John Adolph Mancini (Lower Division) ..... Hayward
[12]George S. Mizota (Lower Division) ..... Fukuoka, Japan
[3]Howard Bowman Nichols (Civil Engineering) ..... San Jose
Henry Leland Oberg (Economics) ..... Palo Alto
Edwin Greenlee Roodhouse (Lower Division) ..... Alhambra
William D. Van de Carr (Lower Division) ..... Hollywood
Frances Robin Vaughan (Lower Division) ..... Palo Alto

The W. J. Dickey Scholars

Leonard Garrard Dobson (Lower Division) ..... Fresno
Algot Julius Peterson (Economics) ..... Kingsburg

The Dodds Scholar

James Creighton Muir (Lower Division) ..... Wilbur, Wn.

The Hiram C. Fisk Scholar

Walter Grant Hays (Law) ..... Palo Alto

The Gertrude Gardiner Scholars

[1]Dorothy Lilian Burke (Physiology) ..... Monett, Mo.
[23]Pauline May Ratzell (Spanish) ..... Turlock

The Wilmer J. Gross Scholars

[12]Donald Hennegan Byl (Mechanical Engineering) ..... San Jose
[3]Theodore Raymond Haseltine (Lower Division) ..... Crockett

The Brodie G. Higley Scholar

Cecil Hastings Balmat (Mechanical Engineering) ..... Spokane, Wn.

The Journalism Scholar

[23]Pearl Bundick (Economics) ..... Jennings, La.

University Scholars

Reo Bliss Armitstead (Medicine) ..... San Francisco
A.B., Stanford, 1921, A.M., 1923
Edwin Kennith Baum (Electrical Engineering) ..... Norfolk, Neb.
A.B., Stanford, 1922
[12]Robert Cedric Binkley (History) ..... Cobb
A.B., Stanford, 1922
Edwin Mitchell Blakeslee (Electrical Engineering) ..... Stanford University
A.B., Stanford, 1922
Everett Carlson (Medicine) ..... San Francisco
A.B., Stanford, 1920

[1]Ragnhild Marguerite Chevalier (French) ..... Berkeley
A.B., Stanford, 1921

[1]Ethel Frances Cline (Law) ..... Marietta, Ohio
A.B., Marietta, 1915

Mary Lida Cornes (Classical Literature) ..... San Jose
A.B., Stanford, 1922, A.M., 1923

Muriel Emma Edwards (Medicine) ..... Wallace, Idaho
A.B., Stanford, 1921

[12]Oscar Julius Falnes (History) ..... Woodburn, Ore.
A.B., St. Olaf, A.M., Stanford, 1922

Halfdan Ingstrup Gregersen (Spanish) ..... Solvang
A.B., Stanford, 1922, A.M., 1923

Edwin Wilson Hadley ..... San Diego
A.B., Stanford, 1920, J.D., 1923

Ernest Mosiah Hall (Medicine) ..... St. George, Utah
A.B., Brigham Young, 1905; M.S., State College of Washington, 1916

Mary Anderson Hill (English) ..... San Diego
A.B., Vassar, 1889; A.M., Stanford, 1922

Faye Josephine Hunt (English) ..... Twin Falls, Idaho
A.B., Stanford, 1922

Marcella Hélène Kartheiser (French) ..... Spirit Lake, Idaho
A.B., State College of Washington, 1921; A.M., Stanford, 1923

[23]Edward Durley Landels (Law) ..... Stanford University
A.B., Stanford, 1923

Herbert Reynolds Laslett (Psychology) ..... Palo Alto
A.B., Kansas, 1918; A.M., Stanford, 1923

Harry Edgar Lindersmith (Law) ..... Westwood
A.B., Stanford, 1922

Dell Theodore Lundquist (Medicine) ..... Middletown
A.B., Stanford, 1922

Erford Ansel McAllister (History) ..... San Jose
A.B., College of the Pacific, 1922

Frank Allan MacDonald (Medicine) ..... San Francisco
A.B., Stanford, 1921

Julius Mackson (Law) ..... San Francisco
A.B., Stanford, 1922

John Torrance McRuer (Education) ..... Palo Alto
A.B., Park, 1913; A.M., Stanford, 1923

Cathrine America Moore (Education) ..... Palo Alto
A.B., Stanford, 1922, A.M., 1923

Ruth Allen Nethercut (Medicine) ..... Lake Geneva, Wis.
A.B., Stanford, 1919

[3]Clara Louise Osgood (History) ..... Parsons, Kansas
A.B., Kansas, 1912

Emmet Earl Sappington (Medicine) ..... Watsonville
A.B., Stanford, 1922

Pearl Mabry Smith (Medicine) ..... Stanford University
A.M., Wisconsin, 1916

Harry Alexander Somerfield (Medicine) ..... Cincinnati, Ohio
A.B., Stanford, 1921

Homer Pearson Struble (Medicine) ..... Penryn
A.B., Stanford, 1922

[22]Nellie Blythe Sullivan (Psychology) ..... Los Angeles
A.B., Southern California, 1917

Edward Langstroth Wood (Law) ..... Denver, Colorado
A.B., Stanford, 1921, J.D., 1923

THE ERNEST A. LOVE SCHOLAR

Philip Shearer Fogg (Lower Division) ..... Palo Alto

THE MRS. McDOWELL ROBLE CLUB SCHOLAR

Montana Delbon (Spanish) ..... Turlock

THE DOROTHY METZ SCHOLARS

[12]Franklin Edward Starkins (Lower Division) ..... Ithaca, N. Y.
[3]Eileen Mae Cram (Economics) ..... Colax, Wn.

THE MARCELLE HENRIETTE ROUILLER SCHOLAR

Edwin Roosa Clapp (English) ..... Santa Rosa

THE LEON SLOSS SCHOLAR

Genevieve Susan Stichter (Lower Division) ..... Cupertino

THE SPERRY SCHOLAR

[3]Elton Cornell (Chemistry) ..... Sunnyvale

THE JOHN MAXSON STILLMAN SCHOLAR

Alan Campbell Richardson (Chemistry) ..... Menlo Heights

THE LELAND STANFORD JUNIOR MEMORIAL SCHOLAR

Victor Julian Minner (Lower Division) ..... Carbondale, Ill.

THE SAN MATEO HIGH SCHOOL REGIONAL SCHOLAR

[23]Ruth Lee Spilman (Lower Division) ..... Palo Alto

STUDENTS

Name; home residence; major subject; status; University residence; post-office. Post-office in all cases *Stanford University* except where University residence is followed by initial letter of town ('p' indicates *Palo Alto* post-office; 'Mayfield-m,' *Mayfield* post-office, etc.). Street address *Palo Alto* or *Campus* unless otherwise named.

Status.—gr., graduate student; sp., special student. The figures after major subject indicate, first, the number of units of university work completed (and counting toward the 180 units required for graduation), no account being taken of 'deferred,' 'incomplete,' or 'conditioned' work; second, the number of grade points in excess of, or falling short of, the number of registered units ('+20', in excess; '—20', deficient). Where two numbers (separated by a point) precede the plus or minus sign, the first indicates the number of units of advanced or other credit to which the grade-point system does not apply; thus 45·50+10 means that the total credit is 95 units, but that the +10 grade points are based upon the 50 units only.

The superior figure 1 indicates registration for the autumn quarter only; 2 indicates winter quarter only; 3 indicates spring quarter only; 4 indicates summer quarter only; 12 indicates autumn and winter quarters only; 23 indicates winter and spring quarters only; 13 indicates autumn and spring quarters only; 5 indicates autumn, winter, spring, and summer quarters. The asterisk (*) indicates registered *in absentia;* the double dagger (‡) indicates unadjusted standing from other colleges and universities. (Phys.=Physics; Phyl.=Physiology.)

Aaron, Sadie	Kennewick, Wn.	LD 84·52+86	334 Roble
Abbott, Cecil Vetus	Chrisney, Ind.	LD 24·45+1	21 Salvatierra
deAberle, Sophie A.B., Stanford, 1923	Palo Alto	Med. gr.	252 Kingsley-p
Abrams, Delos, Jr. A.B., Stanford, 1923	Pasadena	Geol. 67·118+14	Phi Gamma Delta
[4]Abright, Anne Pauline A.B., Stanford, 1909	Hannibal, Mo.	Educ. gr.	3 Lasuen
Acheson, Joseph Heron	Berkeley	LD ‡ 34–17	281 Embarcadero
Achilles, Theodore C.	Morgan Hill	LD 21·45+12	Beta Theta Pi
[13]Ackerman, Douglas	Kealakekua, T. H.	LD 26–12	Phi Delta Theta
Ackerman, Sidney David	Spokane,Wn.	LD 44+34	27 Encina
Ackley, Ruth Dickinson	Los Angeles	LD ‡ 44–8	356 Roble
[5]Acre, Harlan Quincy A.B., Indiana, 1918	Riverside	Educ. gr.	206 Union
Adams, Bradford C.	Los Angeles	LD 90+53	238 Encina
[124]Adams, Donald Galen	Riverside	LD 42+29	122 Encina
Adams, Elmore Cox	Palo Alto	LD 38+2	1121 Bryant-p
Adams, Ephraim	Turlock	LD 97+90	947 Waverley-p
[4]Adams, Jane Elizabeth	San Diego	Educ ‡	271 Roble
Adams,John Martin	Klamath Falls,Ore.	LD 39+18	16 Alvarado
[4]Adams, Marvin O., Jr.	Los Altos	LD ‡	6 Lasuen
[4]Agar, Lucy Marsden B.L., California, 1910	Petaluma	Engl. gr.	Selby Lane, RC-B22rc
[5]Aguerrevere,SantiagoE.	Caracas, Venez.	Geol. 137+78	Theta Chi
[4]Aho, Leonard A.B., Stanford, 1920, A.M., 1921	Palo Alto	Psych. gr.	559 Cowper-p

[5]Akey, Donald Kenneth	Fresno	Phys. 87·43+29	15 Encina
[4]Akey, Ethel Freda	Fresno	LD ‡	217 Roble
[124]Akey, Olen Myrl B.A., Ohio State, 1920	Fresno	Phys. gr.	15 Encina
Alabaster, Lewis Plimpton	Riverside	Econ. 147+148	Beta Theta Pi
[4]Alan, George Byron A.B., Michigan, 1919, LL.B., 1921	Redwood City	Hist. gr.	718 Bryant-p
[4]Alderson, Fern Marie	San Francisco	LD ‡ 20+30	535 Fulton-p
Alekian, Alexander Edward	Fresno	Econ. 90·43+10	50 Encina
Alexander, Alden Hay A.B., Stanford, 1923	Riverside	Pre-Clin. 135·47+16	304 Encina
Alexander, Herbert B. A.B., Stanford, 1923	San Jose	Hist. gr.	358 Encina
Alexander, Tom C., Jr.	Kansas City, Mo.	LD 69+0	Delta Tau Delta
Alexander, Walter S.	Los Angeles	M.E. 47·121+1	Beta Theta Pi
Alison, Etta Lucille	Campbell	LD 40–14	232 Roble
Allegrini, Rita Adelaide A.B., Stanford, 1922, A.M., 1923	San Jose	Engl. gr.	333 N. 5th, SJ-sj
[23]Allen, Arden Joseph	San Francisco	LD 31+12	445 Hamilton-p
Allen, Edgar Melbourne	Oakland	LD 9·74–4	49 Sequoia
[4]Allen, Latham Hamilton	San Francisco	LD	109 Encina
Allen, Lloyd Jeffreys	Palo Alto	LD 83+13	909 Hamilton-p
[4]Allen, Marie Louise A.B., Kansas Wesleyan, 1917	San Jose	Cl. Lit. gr.	146 Roble
Allen, Marjorie Sarah	Los Angeles	LD 44+74	364 Roble
[3]Allen, Raymond Jackson A.B., Stanford, 1922	Riverside	Econ. gr.	204 Union
Allexsaht, William John A.B., Stanford, 1922	Weiser, Idaho	Med. gr.	2215 Buchanan, SF-sf
Allison, Herman Thomas A.B., Montana, 1913; A.M., Stanford, 1923	Palo Alto	Educ. gr.	347 Alma-p
Allison, Horace Burgess	Santa Ana	LD 85+24	Theta Delta Chi
[5]Allmand, John T., Jr.	Detroit, Mich.	Law 142+78	123 Encina
[1]Almack, John Conrad B.S., Oregon, 1920; Ph.D., Stanford, 1923	Eugene, Ore.	Educ. gr.	Mayfield
Alvord, Benjamin, Jr., A.B., Stanford, 1923	Washinton, D.C.	C.E. gr.	513 Encina
[12]Amberg, Gustav A. A.B., Stanford, 1923	San Francisco	C.E. 180+22	362 Encina
Ambler, Alfred Carleton A.B., Stanford, 1921, A.M., 1923	Palo Alto	Phyl. gr.	147 Emerson-p
Ambrose, Norman W.	Santa Barbara	LD 94+18	336 Encina
Ames, Helen Jordan	Los Altos	LD 47+24	350 Roble
[1]Amstutz, Harry Peter	Riverside	Law ‡	519 Webster-p

Andersen, Emelie E. A.B., Stanford, 1919	Spokane, Wn.	Med. gr.	2211 Calif., SF-sf
[4]Anderson, Andrew Marius B.S., Brigham Young, 1923	Moroni,Utah	Educ. gr.	213 Emerson
[4]Anderson, Carl Arthur A.B., Nebraska, 1916; A.M., Columbia, 1917	San Carlos	Educ. gr.	Box 35, SC-sc
[1]Anderson, Carl William	Livermore	LD 55–21	Theta Chi
Anderson, Frederick L.	Marysville	Chem. 10·150+17	Sigma Nu
[5]Anderson, Henry Stow A.B., Stanford, 1922, A.M., 1923	Palo Alto	Econ. gr.	315 Cowper-p
[4]Anderson, Hugo Eugene A.B., Augustana, 1908	Adin	Phys. gr.	521 Addison-p
Anderson, James K.	Hollywood	Econ. 96·45+7	25 Salvatierra
Anderson, Joanna Maria	Pasadena	LD 90+44	Alpha Phi
Anderson,L.Harold,	Minneapolis,Minn.	C.E. 66·88+27	Delta Chi
Anderson, Lorna D. A.B., Stanford, 1917, A.M., 1923	Palo Alto	Sch. Ed. gr.	737 Webster-p
[23]Anderson, Marjorie Belle	Burbank	Engl. 116·29+11	370 Roble
[12]Anderson, Ottilia C. A.B., Stanford, 1923	San Jose	Engl. gr.	310 Roble
Anderson, Ralph E.	Kingsburg	LD 98+48	415 Encina
[3]Anderson, Virginia C.	Los Angeles	LD 72·15+12	157 Roble
[5]Anderson, Werner Eugene	Livermore	Econ. 88·77+2	Theta Chi
[5]Andreuccetti, Ameglio A.B., Nevada, 1920	Reno, Nev.	Law gr.	1000 Oak, SF-sf
[3]Andrews, Bertrand Albert	Pasadena	LD 31+8	Beta Theta Pi
[23]Andrews, Chester Richard	Fresno	LD 30+9	Sigma Nu
[4]Andrews, Clara D. B.S., Oregon Agricultural, 1895	Dos Palos	Span. gr.	253 Roble
Andrews, Violet	Los Angeles	Econ. 168+95	KappaKappaGam.
Andrus,OrrinEdgar	TroyCenter,Wis.	LD 88+60	69 Sequoia
Angell, Richard Sloane	Portland, Ore.	LD 49+61	117 Encina
Anglim, James Harold A.B., Stanford, 1923	Represa	Law 180+187	514 Encina
[1]Ankele, John Henry, Jr. A.B., Stanford, 1921, J.D., 1923	San Francisco	Law gr.	Chi Psi
[4]Annable, June Ellen	So. Pasadena	Educ ‡	103 Roble
Anschutz, Ralph Irving	Oakland	LD 43+40	Delta Chi
[12]Anzini, Daniel Irwin A.B., Stanford, 1923	San Jose	M.E. 10·170+193	120 Martin,SJ-sj
Applewhite, Samuel P.,Jr. A.B., Stanford, 1923	Douglas,Ariz.	Geol. 198+162	Phi Kappa Sigma
[4]Arana, Victor D.	Nogales, Ariz.	LD. sp.	1 Lasuen
Archer, William Harry	Santa Monica	LD 71+9	418 Encina

Argall, Marsden Stratton	Milpitas	LD 48·99+24	727 Cowper-p
[5]Argue, Richard Lawrence	Toledo, Ohio	Law ‡ 23+8	Sigma Nu
[18]Arimori, Yoshikiyo	Okayama, Japan	Econ. ‡ 38–10	Japanese Club
Armanini, Albert Louis	Mountain View	LD 46+54	Mountain View-mv
Armanini, Lawrence A.	Mountain View	LD 93+163	Mountain View-mv
[23]Armbruster, Earl	Los Angeles	Min. ‡ 25–6	44 Encina
Armitstead, Reo B. A.B., Stanford, 1921, A.M., 1923	San Francisco	Med. gr.	2631 Clay, SF-sf
Armour, Merrill A.	Long Beach	LD 48+36	Alpha Tau Omega
[3]Arthur, James Leland	Clovis	LD 66–12	327 Encina
[1]Ashfield, James Robert		LD ‡ 12–1	
[24]Ashford, Clarence Chester	Fruita	LD 57–16	Runnymede
[2]Ashley, Gordon Shaw	Palo Alto	LD 16+7	611 Waverley-p
Ashley, Hammond	Palo Alto	M.E. 149+137	AlphaKap.Lambda
Ashley, Lloyd Hamlin	Alameda	LD 33–11	Theta Xi
[4]Asperger, Otto	Tucson, Ariz.	LD ‡	440 Cowper-p
[3]Atkinson, Ray Cook	Ukiah	LD 14+14	105 Encina
Atwater, Clement Finley	Hollywood	Econ. 104+2	Alpha Tau Omega
Atwood, David Stoddard A.B., Stanford, 1923	Los Angeles	M.E.36·155+96	Alpha Tau Omega
Austin, Arthur A.B., Stanford, 1923	Oakland	Econ. 183+63	Delta Tau Delta
[4]Austin, Frances M.	Seattle, Wn.	LD ‡	359 Emerson-p
[4]Austin, George Ray B.E., Washington, 1920	Seattle, Wn.	Educ. gr.	Alexandria Hotel-p
Austin, Laura Virginia A.B., Stanford, 1923	Fresno	C.E. 93·90+104	106 Roble
[1]Avery, George True M.A., Harvard, 1917	Ft. Collins, Colo.	Psych. gr.	845 Bryant-p
[5]Avilla, Leonard Ray	Hughson	LD 75+30	28 Sequoia
Aydelott, Frank Lee	Hanford	LD sp. 28–4	Sigma Nu
Aydelott, James Lee	Hanford	LD 43–14	Sigma Nu
[4]Ayars, Marian Ogden	Paso Robles	Ed. G.A. ‡	
[3]Ayer, J. Warren A.B., Otterbeim College, 1907	Los Gatos	Educ. gr.	Los Gatos-lg
[5]Ayres, Elliott Howard	Palo Alto	Econ. sp. 10·115+83	1119 High-p
[4]Ayres, Vincent Leonard B.S., Penn State, 1916, M.S., 1920	Monroe, N.Y.	Geol. gr.	727 Cowper
Baalmann, Marcel C.	San Francisco	LD 38–17	139 Encina
Babcock, Clyde H.	ColoradoSp'gs,Colo.	LD 49·41+5	429 Encina
[4]Bachman, Frederick W. A.B., Stanford, 1922	Portland, Ore.	Fr. gr.	19 Cabrillo
Bacigalupi, Rimo C. A.B., Stanford, 1923	San Francisco	Bot. 8·177+278	425 Encina

de Back, Norman J.	San Francisco	Econ. 131+8	Delta Tau Delta
[1]Backlund, William Balder	Kingsburg	Law gr.	303 Encina
A.B., Stanford, 1920, J.D., 1923			
[4]Backstein, Ricka Barth	Sonora, Ariz.	Span. gr.	326 Roble
A.B., Arizona, 1923			
Baddley, Elmer R.	Salt Lake City, U.	Geol. gr.	538 Cowper-p
A.B., Utah, 1922			
Badham, Byron Jack, Jr.	Los Angeles	Law 138+117	349 Encina
[23]Baer, Noel Oliver	Tucson, Ariz.	Educ. gr.	353 Encina
B.S., Arizona, 1922			
[5]Bailard, Beverly Benjamin	Carpenteria	Geol. 8·141+181	431 Encina
Bailey, Marguerite Doris	Red Bluff	Ed.G.A.184+104	AlphaOmicronPi
A.B., Stanford, 1923			
Bailey, Thomas Andrew	San Jose	Cl.Lit.136+265	103N.Basc'meSJ-sj
Bailey, Wilbur Porter	San Jose	LD 62+92	451 Encina
[5]Bailie, Everett Graves	Los Angeles	Econ. 129+132	226 Union
Bailie, Margaret Allen	Los Angeles	LD 46·67+11	Alpha Phi
Bailiff, Laurence Deane	Stanford Univ.	Span. gr.	224 Union
A.B., Stanford, 1918, A.M., 1919, Ph.D., 1923			
[4]Baird, Chester Alvan	Groveport, Ohio	Geol. gr.	627 Bryant-p
B.Sc., Ohio State, 1916			
[1]Baker, Charles C.	San Francisco	LD 49–26	Sigma Chi
[4]Baker, Dorothy R.	Los Angeles	LD ‡	358 Roble
Baker, George Cook	Palo Alto	LD 37–7	515 Lytton-p
Baker, George Harold	Santa Ana	LD 126+27	Delta Upsilon
Baker, Harry V.	Grimes	Med. gr.	1418 Larkin, SF-sf
A.B., Stanford, 1921			
[4]Baker, John J.	Oakland	Pre-Med. ‡	321 Union
[124]Baker, Joseph Lucien	Denver, Colo.	LD sp. 55+6	559 Cowper-p
Baker, Mary Anne	Baker, Ore.	LD 93+81	304 Roble
[13]Balcomb, Violet May	Palo Alto	LD 89+148	335 Everett-p
Ballard, Edmond O.	Bucklin, Mo.	LD 32–5	947 Waverley
[5]Ballou, Fremont Osbert	Los Angeles	Bot. 78·46+64	539 Homer
Balmat, Cecil Hastings	Stanford Univ.	M.E. 166+299	317 Encina
Baltimore, Louis	Los Angeles	Med. gr.	2215 Buchanan, SF-sf
A.B., Stanford, 1922			
Banta, Arthur Perry	Chinook, Mont.	LD 52+22	945 Webster
[34]Baptie, Albert Sheldon	Bakersfield	Geol. 46–3	Sigma Nu
[5]Baptie, Charles Christopher	Bakersfield	LD 111+36	Sigma Nu
Barber, Elsa Jean	San Francisco	LD 93+132	Gamma Phi Beta
Barby, Otto Carl	Knowles, Okla.	Law 163+149	130 Encina
Barby, Ralph Earl	Knowles, Okla.	LD 140+46	130 Encina
[1]Barceloux, Pierre Marcell	Willows	LD 4–15	232 Encina

[12]Barham, Leonard Edwin	Oakland	LD 94+22	Theta Delta Chi
[4]Barker, Wallace Woodward A.B., Harvard, 1905	Pasadena	Fr. gr.	15 Salvatierra
Barley, Charles Victor	Long Beach	Pre-Med. 48·109+125	201 Encina
Barlow, Frederick Walter	Hollywood	LD 90+20	Phi Kappa Psi
[23]Barlow, Genevieve A.B., Southern California, 1918	Gardena	Span. gr.	634 Hamilton-p
Barnard, Leonard Bryan A.B., Stanford, 1922	Niles	Med. gr.	2201 Calif., SF-sf
[4]Barnard, Mabel	Palo Alto	LD ‡	475 Hamilton-p
Barnes, Edwin Rexford A.B., Stanford, 1923	Ceres	Econ. 4·176+153	45 Sequoia
[12]Barnes, Glen Charles	Los Angeles	LD 58–5	Kappa Sigma
Barnett, Charles W. A.B., Stanford, 1923	Santa Rosa	Chem. 180+270	8 Mirada
Barnett, Ellsworth Lansing	Santa Rosa	LD 30+18	Alpha Kappa Lambda
Barnett, Eric Gordon	Lower Lake	LD 135+60	601 Melville
Barrett, Dallas Leslie A.B., Stanford, 1923	Humboldt, Iowa	Pol. S.-Law 133·48+51	364 Encina
Barricklow, Eljah	Turlock	Engl. 159+108	Gamma Phi Beta
[4]Barry, Raymond Walker	Palo Alto	Engl. gr.	429 Forest-p
[1]Barry,William Taylor,Jr. A.B., Stanford, 1916	Santa Barbara	Engl. gr.	715 Bryant
[23]Bartlett, Emily Mary B.A., Maine, 1917	Orono, Me.	Bot. gr.	Redwood City
Bashor, Elias Harold A.B., Harvard, 1916	Palo Alto	Hist. gr.	1027 Bryant-p
Bateman, Albert John	Long Beach	C.E. 146+71	111 Encina
[1]Bates, Merrill	Menlo Park	LD 0–18	Box C, MP-mp
[1]Batten, John E., Jr.	Lost Creek,W.Va.	LD 4–13	129 Emerson-p
Baum, Edwin Kennith A.B., Stanford, 1922, Engineer, 1923	Norfolk, Neb.	E.E. gr.	321 Encina
[5]Baxter, Philip Norman	Stockton	LD 48+58	340 Embarcadero-p
[4]Baxter, Ruth	Monterey	Pre-Med. ‡	910 Munras, M-m
Bayley, Arnold Blakeman	Los Angeles	Econ. 138+3	Alpha Sigma Phi
Baylis, Edythe Goodwin	Los Angeles	Engl. 132+58	Chi Omega
[4]Bays, Willamette A.B., Maryville, 1912	Salinas	Engl. gr.	177 Roble
[5]Beach, Rachel Julia	Palo Alto	LD 15·84+26	Sigma Kappa
[5]Beach, Susan E.	Palo Alto	Econ. 90·52+59	540 University-p
[23]Beach, W. Edwards A.B., Stanford, 1922	Palo Alto	Econ. gr.	540 University-p
Beardsley, Charles Edward	Los Angeles	Law 113+80	13 Encina
Beardsley, Frank Dey A.B., Stanford, 1923	Taylorsville	M.E. 45·139+213	85 Sequoia

[12]Beardsley, John Wyman	Los Angeles	LD 34–44	13 Encina
Beattie, Augustus Canfield A.B., Stanford, 1922	Portland, Ore.	Med. gr.	2201 Calif., SF-sf
Beaufort, John M. M.	Van Nuys	LD 29–4	535 Encina
Beaver, Harold J.	San Francisco	Med. gr.	2211 Calif., SF-sf
[4]Beaver, Mary Ann	Palo Alto	Educ. gr.	912 Waverley-p
Beaver, Peter Pierce	San Francisco	LD 42–5	Phi Kappa Sigma
Becker, Arthur W.C.	Springerville, Ariz.	LD 150+35	Alpha Kappa Lambda
Becker, John Greenough	Long Beach	LD 52·45+29	129 Emerson-p
Beckman, Olive Gunnison	Monrovia	LD ‡ 42–2	271 Roble
Beckwith, Burnham P.	Pasadena	LD 44+19	406 Encina
[1]Bedichek, Frederick Earl	Santa Maria	LD ‡ 3–14	635 Bryant-p
Beede, Arthur Huntington B.S., Occidental, 1920	Whittier	Med. gr.	2215 Buchanan, SF-sf
[5]Beeson, Harold G.	Anchorage, Alaska	Chem. 90·42+32	Kappa Alpha
[5]Belanger, Joseph	Shelburne Falls, Mass.	LD 39+24	62 Encina
Belcher, Stanley Smith	Marysville	LD 91+25	Kappa Sigma
Belenky, Lucas	Zotolanshu, Russia	LD sp. 35+1	1431 Waverley-p
Bell, Frederick Fancher	Carlsbad, N. M.	LD 88–2	403 Encina
Bell, Luther Shepard	Carlsbad, N. M.	LD 94+105	405 Encina
[1]Bell, Muriel Frances	Palo Alto	Fr. 18·95+10	532 Homer-p
[12]Beltz, Samuel Stewart	Pasadena	Econ. 84–10	737 Bryant-p
Benedict, Charles Keep	Palo Alto	LD 44–12	1230 Emerson-p
[5]Benedict, Howard Courtney	Palo Alto	Chem. 100+63	Base Hospital-p
Benepe, Wesley Uhl	Sebastopol	LD 46+4	329 Encina
[1]Bennett, Guy Morrison	Hollywood	LD ‡ 53–32	445 Hamilton
[4]Bennett, Manford Wendle	San Jose	LD ‡ 15–3	196 Hawthorne, SJ-sj
Bennett, Merrill Kelley A.M., Brown, 1921	Palo Alto	Engl. gr.	270 Kellogg
[5]Benninger, Charles, Jr.	San Francisco	Chem. 128+26	Stanford Park
[4]Benson, Albert Niles	Decoto	LD ‡	R.D. 145 P, MP-mp
[13]Benson, Allen G.	Huntington, Pa.	C.E. ‡ 53–15	Sigma Nu
Benson, Cecil Raney	Santa Clara	LD 94+79	1515 Franklin, SC-sc
[12]Benson, Gilbert Thereon A.B., Stanford, 1923	Oswego, Ore.	Bot. gr.	Hotel Palo Alto-p
[4]Bent, Emeline Hersey	Milton, Mass.	LD sp.	340 Roble
Bentley, C. Eugenia	Los Altos	LD 102+47	Delta Gamma
[12]Bentley, Elizabeth Noel	Menlo Park	Fr. 21·84+95	Box 645, MP-mp
[3]Benwell, Leon John	Long Beach	LD sp. 13+11	334 Encina
[3]Berendsen, Anita M.	San Francisco	Econ. 109+75	Alpha Phi
[23]Berger, Philip Raymond	Oakland	LD 29+41	304 Encina
Bering, Barry Farmer	San Francisco	LD 46+53	453 Channing-p

Berk, Henry H.	Alstown, Wn.	LD 147+49	207 Encina
[3]Berman, Morris	San Francisco	Chem. 113+120	106 Encina
Bernstein, Frank S.	San Francisco	Econ. 180+99	211 Union
A.B., Stanford, 1923			
Bernt, Daniel Martin, Jr.	Spreckels	Geol. 39·166+20	Theta Chi
A.B., Stanford, 1923			
Berry, Lowell Webster	Asotin, Wn.	Econ. 112–1	11 Salvatierra
[5]Berry, Othmar Berarde	Selma	Econ. 15·95+0	Phi Kappa Sigma
Bertrand, DeWitt Clinton	Aberdeen, Wn.	M.E. 183+56	311 Union
A.B., Stanford, 1923			
Best, Rouie Alice	Riverside	Hist. 90·60+37	314 Roble
Beswick, Katherine	Tustin	Fr. 10·171+239	156 Roble
A.B., Stanford, 1923			
[1]Bettelheim, Albert S.	Visalia	LD 36–17	36 Sequoia
Bettinger, Lee Crawford	Berkeley	LD 39–18	581 Forest-p
Beuter, Paul Henry	Los Angeles	Econ.-Law 180+22	217 Encina
A.B., Stanford, 1923			
[4]Beyer, Anna Estella	Los Angeles	LD ‡	171 Roble
Bianchi, Marie Lucy	Mountain View	Span. 191+176	Box 375, MV-mv
A.B., Stanford, 1923			
[5]Bichsel, Stanley Earnest	Long Beach	Econ. 26·119–2	Beta Theta Pi
Biddison, James Philip	Goodland, Kan.	LD 90+27	405 Encina
Biddle, Eunice Katherine	Long Beach	Engl. 137+69	Delta Gamma
Bidwell, Lillian Follis	Glendora	LD 93+116	308 Roble
[12]Bielefeldt, Talbot	Placentia	LD 74+87	445 Encina
Bigelow, Herbert S.	O'Neals	Econ. 92+139	Mountain View-mv
Biggar, Virginia Keith	Los Angeles	Econ.47·88+8	Kappa Kappa Gam.
[5]Billig, Florence Grace	Palo Alto	Bot. gr.	643 High-p
B.S., Chicago, 1915; M.A., Columbia, 1919			
Billings, Geraldine	McFarland	Sch. Ed. gr.	415 Lytton-p
A.B., Stanford, 1922			
[4]Billingshurst, Ruth Anna	Reno, Nev.	Chem. gr.	238 Roble
B.A., Ohio Wesleyan, 1921			
[4]Bingham, Frank Thomas	San Diego	LD sp. ‡	44 Encina
Binkley, Robert Cedric	Cobb	Hist. gr.	84 Sequoia
A.B., Stanford, 1922			
Binkley, Thaddeus C.	Cobb	LD 49+36	84 Sequoia
[12]Bird, Milo Alfred	Stanford Univ.	Chem. gr.	22 Sequoia
A.B., Stanford, 1922, Engineer, 1923			
[5]Bireley, Frank Wolsey	Hollywood	LD 86+28	Delta Upsilon
[1]Birnie, Bernard John	Long Beach	LD sp. 40–9	1130 Bryant
[5]Birnie, David	Holland	Law 45·29–9	666 Tennyson-p
Bishop, Bradford	Colorado Springs, Colo.	Geol. 72·120+110	Kappa Sigma
A.B., Stanford, 1923			

Bissell, Howard Seymour	Cleveland,O.	Econ. 91·48+40	247 Encina
[14]Bissinger, Paul A.	San Francisco	LD 27+7	111 Encina
[3]Black, Howard Walter	Palo Alto	LD 81–9	Delta Kappa Epsilon
Black, Wm. Madison, Jr. A.B., Stanford, 1923	Paso Robles	C.E. 191+98	Delta Upsilon
Blackburn, Chester O. A.B., Stanford, 1923, A.M., 1923	Stanford Univ.	Chem. gr.	115 Alma
[1]Blackburn, S. Robert LL.B., Kansas. 1922	Palo Alto	Law gr.	445 Forest-p
Blacker, Carroll C.	Bakersfield	C.E. 39·123+54	407 Encina
Blackman, Birt Griffin A.B., Stanford, 1923	Ogden, Utah	Econ. 184+184	359 Encina
[34]Blair, James Stuart A.B., Kansas, 1919, A.M., 1920	Palo Alto	Chem. gr.	R.1, Box 255-p
Blakeslee, Edwin M. A.B., Stanford, 1923	Stanford Univ.	E.E. gr.	Theta Xi
[234]Blanchard, Everett Ellis A.B., Stanford, 1919	Sparta, Wis.	Math. gr.	424 Seneca-p
Bledsoe, Barbara Shepler	Los Angeles	LD 71–7	Delta Gamma
Bledsoe, Leighton McL.,	Bisbee, Ariz.	LD 19·46+44	Sigma Alpha Eps.
[5]Bley, Bertrand A.	San Francisco	Law 133+189	307 Encina
Bley, Irma Lillian A.B., Stanford, 1923	San Francisco	Span. 95·67+99	332 Roble
Blosser, Fred Claire	Fresno	Law ‡ 65+6	Theta Chi
Blythe, Lysle A.B., Stanford, 1923	Palo Alto	Engl. 181+58	381 Channing-p
[4]Bodine, Charles Lee	Tucson, Ariz.	LD ‡	446 Hamilton-p
Boeseke, Felecita Elisa	Santa Barbara	LD 43+26	328 Roble
Boezinger, Olivia	Menlo Heights	Fr. 4·130+141	Menlo Heights
[4]Bohan, Blanche B.	Dickinson, N. D.	LD ‡	284 Roble
Bohman, Ernest	Troy, Idaho	LD 39–13	66 Sequoia
[12]Boillot, Margaret Judd A.B., Stanford, 1923	Berkeley	Fr. 102·79+65	Palo Alto Hosp.-p
Boles, Harold Everett	Los Angeles	LD 41+17	Delta Upsilon
[3]Bollinger, Eldred Floyd	Cupertino	Chem. 104+56	Box 55, C-c
[23]Bolman, Marion DeWolfe	Palo Alto	LD 24·31+20	354 Roble
[5]Bonar, Perry Arthur	Santa Rosa	Chem. 113+96	Kappa Alpha
[4]Bonner, Doris Rozella	Fresno	LD	38 Lasuen
Bonner, W. Folsom	Okla. City, Okla.	Econ. 131+66	Phi Gamma Delta
[12]Bonnett, Alfred Bates	Riverside	LD ‡ 48–25	400 Encina
[2]Bonnot, Paul	Palo Alto	Zool. 89+10	Base Hosp.-p
Booker, Robert Gary	Pembina, N. D.	LD 40–5	655 S. 2nd, SJ-sj
[5]Booksin, Jeannette Louise	Campbell	Phil. 165+38	Gamma Phi Beta

Boone, Andrew Richmond	San Diego	Econ.-Law ‡ 111+28	202 Union
[4]Boone, Frances E.	Palo Alto	LD	Pacific Grove-pg
Boone, John Marshall	Baltimore, Md.	LD 29–22	129 Emerson-p
[234]Boone, Thomas Harold	Palo Alto	LD 78+18	Chi Psi
[5]Booth, Bates Walter	Fort Worth, Tex.	Law128·45+11	LaurelC'rt,MP-mp
[4]Booth, Cecile E.	Soda Springs, Ida.	LD ‡	303 Roble
[134]Booth, Edwin Spencer	Palo Alto	Hist. 162+142	1121 Bryant-p
Booth, Howard N.	Webster Groves,Mo.	LD 85–18	90 Sequoia
Booth, Robison Eyre	Butte, Mont.	LD 155+127	Kingscote
Borba, Harry James A.B., Stanford, 1923	Sebastopol	Hist.-Jn. 182+93	8 Union
Borchers, Walter Claus	San Jose	LD 85+35	55 E. Empire, SJ-sj
[4]Bordwell, Naomi A.B., Grinnell, 1921	Vinton, Ia.	Sch.Ed. gr.	365 Lincoln-p
Boren, Raitt Stanford	Oakland	LD 46+9	124 Encina
Bormose, Ruth Teresa A.B., Stanford, 1921, A.M., 1923	Murrietta	Fr. gr.	258 Roble
Botley, Richard Marsdon A.B., Stanford, 1923	Sussex, Eng.	M.E. 34·147+69	412 Cowper-p
[3]Botsford, Carol H.	Los Angeles	Hist. 135·13+14	316 Roble
Botts, Ernest Lloyd	Santa Rosa	Med. gr.	2018 Webster, SF-sf
[5]Bourke,John Ievers	Melbourne,Australia	Econ. 134·40+3	7 Cabrillo
Bousfield,JohnDunwoody	Aberdeen,Wn.	LD 12–10	347 Alma
[5]Bowen, Chester S.	Vancouver, B.C.	Econ. sp. 20·161+63	20 Encina
Bowen, Theodore E. LL.B., Stanford, 1923	Twin Falls, Ida.	Law 19·191+223	430 Encina
[12]Bower, Gordon Rawlings	Buffalo, N.Y.	Engl. sp. 116+31	58 Encina
Bower, Kendall Myers	Menlo Park	LD 137+26	Box 81D, MP-mp
[4]Bowman, J. Carl B.S., Oregon, 1921, M.A., 1922	Lake View, Ore.	Educ. gr.	15 Union
[4]Bowman, Leonard L. B.S., Kansas S. N. S., 1921	Cullison, Kans.	Educ. gr.	125 Encina
[4]Boyd, Mary A. C. A.B., Illinois, 1917	Sheffield, Ill.	Sch.Ed. gr.	252 Roble
Boyd, Robert Tilford A.B., Stanford, 1923	San Francisco	Med. gr.	431 Spruce, SF-sf
Boyd, Walter Harrington A.B., Southern California, 1920	Palo Alto	Med. gr.	1104 High-p
[12]Bolye, Lowell Reed	Ogden, Utah	LD 92–1	147 Emerson-p
Boynton, Robert Davis	San Francisco	LD 11·87+86	Phi Gamma Delta
[12]Bozarth, Elton P.	Long Beach	LD 77–15	Theta Xi
[12]Bradbury, Charles L.	Richmond, Va.	Min. ‡ 6–17	326 Union
[4]Bradley, Henry Andrew B.S., Washington State College, 1911	Santa Cruz	Educ. gr.	341 Columbia, M-m

Bradley, John Allen	Santa Ana	LD 39–5	564 University-p
[4]Bradshaw, Alexandra C.	Whittier	Ed. G.A. 165·0+0	344 Roble
[12]Bradshaw, Roch William	Orange	Econ. 181+115	319 Encina
[5]Bradshaw, Wm. Lawrence	Sacramento	Econ.-Law 10·120+76	20 Encina
Bragg, Arthur Dickinson	Carmel	LD 88+33	Sigma Nu
Brailsford, Beatrice L.	Hagerman, Ida.	LD 83+16	108 Roble
Bramblett, Ernest King	Fresno	LD 47·60+61	LaurelC'rt,MP-mp
Bramhall, Ervin Hicks	Palo Alto	LD 47+6	131 Kellogg-p
Bramkamp, Paul Jay A.B., Stanford, 1923	San Jose	M.E. 182+213	346 Encina
Brammer, George A.B., Stanford, 1923	Stockton	Psych. gr.	635 Webster-p
[23]Brandon, Edward Leroy	Palo Alto	LD 29+14	413 Emerson
[4]Brannigan, John B.Sc., Nebraska, 1915	Holbrook, Ariz.	Educ. gr.	446 Hamilton
[4]Branson, Ernest Patton B.A., Wooster, 1907	Long Beach	Educ.	400 Webster-p
Bransten, William H.	San Francisco	LD 46+45	218 Encina
[5]Brant, Helen Rankin	San Francisco	Engl. 117+20	Gamma Phi Beta
[1]Brant, Ralph Allen	Canton, Ill.	Geol. ‡	475 Hamilton-p
[12]Brazil, Abraham Haggberg A.B., Stanford, 1922	Castroville	Law gr.	64 Sequoia
[2]Brazil, Anthony A.B., Stanford, 1923	Salinas	Econ. 72·109+4	429 Encina
Brazil, Valdo Haggberg	Mayfield	Law50·104+3	Ox.&Williams,M-m
[4]Brees, Clara B.A., Minnesota, 1919	Estherville, Ia.	Engl. gr.	277 Roble
[1]Breidenbach, Emile W.	San Francisco	LD 29–42	Phi Kappa Sigma
[5]Breier, Claus John, Jr.	Lewiston, Ida.	Econ. 173+24	66 Sequoia
[4]Brengman, Andrew J.	Phoenix, Ariz.	LD ‡	115 Alma-p
[23]Brenholts, Dorothy	San Diego	Ed. G.A. 110·29+23	166 Roble
Brennan, Mary Madeleine	Los Angeles	Cl. Lit. 90·49+69	365 Roble
[12]Bresee, Fred, Jr. A.B., Johns Hopkins, 1920	Pittsburg, Kans.	Med. gr.	Kappa Sigma
[4]Brewer, Florence D. A.B., Washington, 1906	Olympia, Wn.	Cl. Lit. gr.	353 Roble
[5]Briesen, Hans V.	San Francisco	Chem. 15·97+11	Alpha Delta Phi
Briggs, Alexander Woodland	Palo Alto	Bot. 156+206	249 Lowell-p
Briggs, Charles Willers	Los Angeles	LD 47+10	Sigma Nu
[4]Brink, Elizabeth Ann	Portland, Ore.	LD ‡	337 Roble
[5]Brinkman, Newton	Sacramento	Econ. 146+31	53 Sequoia
[1]Brock, George Alfred	Los Angeles	LD 7–12	Zeta Psi
Brockway, Maywood L.	Billings, Mont.	LD 44+12	1085 University-p

Broenkow, Herman W.	Tacoma, Wn.	LD 91+87	Phi Gamma Delta
[12]Brokaw, Hal Rexford	Mayfield	LD 117+17	YeColonialPlace,M-m
Brolyer, Cecil Robert A.B., Stanford, 1923	Stanford Univ.	Chem.21·183+204	9 Dolores
Brooke, James Kenneth A.B., Stanford, 1923	Portland, Ore.	Geol. 47·143+54	Theta Chi
[4]Brooker, Edgar	Kantishna, Alaska	LD	947 Waverley-p
[4]Brooks, Donald Cameron	So. Paris, Me.	LD ‡	307 Union
[4]Brooks, Joseph Franklin	Richmond	Pol.S. ‡	Sigma Alpha Epsilon
Brooks, Phillip Terrill	San Jose	LD 98+37	76 S. 11th, SJ-sj
Brooks, Robert Jacob	Akron, Ohio	LD 82+98	324 Emerson-p
[4]Brossman, Helen Esther	Reading, Pa.	LD sp.	309 Roble
[34]Brothers, Edmon Q. A.B., Southwestern, 1912	Palo Alto	Educ. gr.	1345 Cowper-p
[4]Brotherton, Mabel	Grand Rapids, Mich.	Math. ‡	237 Roble
Broughall, Helen K.	Salt Lake City, U.	LD 93+129	Alpha Phi
Brown, Charlotte Hall	Riverside	LD 48+37	324 Roble
Brown, David Ewald, Jr.	Oakland	LD 90+66	90 Sequoia
Brown, E. Stanley	Winnemucca, Nev.	Chem. 134+118	57 Sequoia
[23]Brown, Esther Eggers	Riverside	Engl. 90·45+33	368 Roble
[4]Brown, Ethel Ewert A.B., Illinois Wesleyan, 1913	Montrose, Colo.	Sch. Ed. gr.	415 Lytton-p
[5]Brown, Everett	Eureka	Econ. 144+14	Kappa Alpha
Brown, George Dewey A.B., Stanford, 1921	San Francisco	Med. gr.	1920 Post, SF-sf
Brown, Grace Mary A.B., Stanford, 1923	Aurora, Ill.	Math. 7·190+218	DeltaDeltaDelta
[1]Brown, Homer Waldo A.B., Stanford, 1923	Petaluma	Econ. 180+9	224 Encina
[4]Brown, Jessie L.	La Porte, Ind.	LD sp.	616 Forest-p
Brown, Kenneth Wm.	San Francisco	Chem. 159+69	Alpha Tau Omega
Brown, Leon Bernard	Los Angeles	LD 45+78	447 Encina
Brown, Lyoid Cleetis	Glenburn	LD 41+16	205 Encina
[1]Brown, Mary Elda B.S., Colorado Agricultural College, 1922	Denver, Colo.	Chem. gr.	157 Iris, RC-rc
Brown, Merwyn H. A.B., Stanford, 1923	Winnemucca, Nev.	Law 181+190	Sigma Alpha Eps.
[4]Brown, Muriel W. A.B., Wellesley, 1915	Harrisburg, Pa.	Psych. gr.	115 Everett-p
[4]Brown, Nina H. M.A., State University, Iowa, 1909	Indianola, Ia.	Educ. gr.	Gamma Phi Beta
[5]Brown, Norton Sager	Stanford Univ.	LD 75+21	2 Cooksey Lane
Brown, Philip Meader A.B., Brown, 1922	Providence, R.I.	Econ. gr.	215 Union

[4]Brown, Russell R.	Montrose, Colo.	Sch. Ed. gr.	415 Lytton-p
A.B., Western State College, 1922			
Brown, Walter Roy	Santa Maria	ME. 95·130+5	417 Encina
A.B., Stanford, 1923			
[5]Brown, William Carlton	Palo Alto	C.E. gr.	311 Cowper-p
A.B., Stanford, 1923			
Brown, William Howard	San Diego	Econ. 180+61	Phi Delta Theta
A.B., Stanford, 1923			
Browne, Lafe Todd	Santa Paula	LD 85+6	Sigma Alpha Epsilon
Brownell, Evelyn B.	Stanford Univ.	LD 27·38+31	Kingscote
Browning, Herbert Edward	Palo Alto	Geol. 123·70–4	543 Middlefield-p
[12]Bruce, George Hickman	Montrose,Colo.	Econ. 127·66+12	Box627,MP-mp
A.B., Stanford, 1923			
[5]Bruml, Leonard Foote	Palo Alto	LD 46+88	159 Waverley-p
Brunet, Harold Joseph	Portland, Ore.	Fr. 83·97+124	1001 Forest Ct.-p
A.B., Stanford, 1923			
Brunquist, Ernest Herman	Palo Alto	Phyl. gr.	176 Bryant-p
A.M., Michigan, 1920			
[1]Brust, Paul Raymond	San Francisco	Med. gr.	2718 Calif., SF-sf
A.B., Stanford, 1921			
Bryan, Paul Charles	San Jose	Econ. 130+127	28Magnolia,SJ-sj
Bryant, Edwin Francis	Marysville	LD 46+27	125 Encina
[34]Bryant, Howard S.	San Jose	LD 14·15+17	41 S. 11th, SJ-sj
[5]Bryner, Claude Albert	Price, Utah	LD sp. 56+15	635 Bryant-p
Buchanan, Dorothy King	Palo Alto	Hist. 30·76+75	Box 431-p
Buck, Frederick	Pasadena	LD 37–19	404 Encina
Bucklin, James W.	Palo Alto	Law gr.	936 Waverley-p
A.B., Stanford, 1920, J.D., 1923			
[134]Bucklin, Louis L.	Grand Junction,Colo.	Law 115+1	936 Waverley-p
Buckwalter, John Cassel	Palo Alto	LD 144+165	1511 Waverley-p
[5]Bugbee, James McKean	Hollywood	Geol. 70·77+24	Kingscote
Bugge, Elwyn B.	San Francisco	LD 74·45+15	318 Lincoln-p
Bullis, William A.	Los Angeles	Law 4·106+82	Beta Theta Pi
Bullock, James Rae	South Pasadena	LD 91+85	41 Encina
[1]Bulman, Francis George	Redwood City	LD sp. 21+8	431 Lincoln, RC-rc
Bulman, Robert	San Francisco	Med. gr.	2018 Webster, SF-sf
A.B., Stanford, 1922			
Bumbaugh, Harold L.	Los Angeles	M.E. 30·146+10	Phi Kappa Psi
Bundick, Susie Pearl	Jennings, La.	Econ.-Jn. 180+187	204 Roble
A.B., Stanford, 1923			
[4]Bunds, Clifford C.	Santa Clara	Educ. gr.	1247 Liberty, SC-sc
A.B., Stanford, 1920, Engineer, 1921			
[1]Bunds, Lester Archie	Santa Clara	Chem. gr.	1390 Santa Clara,SC-sc
A.B., Stanford, 1920, Engineer, 1923			

Bundy, Caryl Leonard	Modesto	LD 91–15	244 Encina
Bundy, Robert Gillis A.B., Stanford, 1923	Santa Monica	Econ.14·166+233	DeltaKappaEps.
[4]Bunting, Helen Masters	Stanford Univ.	S.Biol. 135·14+22	San Juan Hill
[5]Burch, George W., Jr. A.B., Stanford, 1922	Owensmouth	Law gr.	216 Encina
§Burcham, Henry MacG.	Spokane, Wn.	LD 58+12	63 Sequoia
[5]Burdick, Donald Lowe	San Jose	Econ. 172+149	255 S. 16th, SJ-sj
Burdick, Wm. E.	Minneapolis, Minn.	Min. 133+104	326 Encina
Burdick, William Leroy A.B., Kansas, 1909; A.M., Yale, 1912; Ph.D., Stanford, 1923	Palo Alto	Chem. gr.	1740 Middlefield-p
[4]Burford, Ruby J. A.B., Stanford, 1921	Chula Vista	Sch.Ed. gr.	210 Roble
[32]Burgess, Keith	Pomona	LD 67+24	375 Everett-p
Burgess, Wm. Arnold	Los Angeles	LD 40–18	Phi Kappa Sigma
Burke, Donald Vincent A.B., Stanford, 1921	San Francisco	Med. gr.	1315 Polk, SF-sf
Burke, Dorothy Lilian	Monett, Mo.	Phyl. 134+194	378 Roble
Burke, S. Walter	San Francisco	Min. 135·46+4	433 Encina
Burkhard, Wm. George A.B., Stanford, 1923	San Francisco	Pre-Clin. 181+116	72 Sequoia
Burks, Dana, Jr.	Venice	Chem. 96·49+82	231 Union
Burks, Virginia A.B., Stanford, 1923	Venice	Econ. 99·84+88	KappaKappaGam.
[3]Burlingame, Lucile Anna	StanfordUniv.	LD 14+5	24 Alvarado
Burlingame, Mildred E.	StanfordUniv.	LD 91+130	24 Alvarado
Burnett, Clarence Irvin A.B., Stanford, 1923	Ely, Nevada	Pre-Clin. 45·135+125	220 Encina
[5]Burnett, Robert	El Paso, Tex.	LD 40·120+32	College Terrace
[4]Burns, Angelina B. B.A., Idaho, 1919	Boise, Ida.	Hist. gr.	305 Roble
[4]Burns, Odis Herschel A.B., Kansas, 1916	Manhattan,Kans.	Law gr.	11 Union
[5]Burr, Susan Sophia A.B., Vassar, 1920; A.M., Stanford, 1922	Pawling, N. Y.	Econ. gr.	University Park
Burrell, Kenneth Hare	San Francisco	LD 47+34	580 Hawthorne-p
Burroughs, John H. A.B., Stanford, 1923	Manchester, N. H.	Econ. 91·85+23	358 Homer-p
[5]Bursch, James Frederick B.S., Kansas State Normal, 1920	Palo Alto	Educ. gr.	347 Ramona-p
[4]Burum, Rayford Y. A.B., California, 1916	Klink	Educ. gr.	1134 Emerson
Bush, Frederic A., Jr.	SilverCity,N.M.	LD 85–9	532 University-p

§ Deceased November 9, 1922.

[12]Bush, Loren Smith	Boise, Idaho	M.E. 180+170	424 Encina
A.B., Stanford, 1923			
[12]Butler, Clarice Eugenia	Palo Alto	Engl. 15·77+53	121 Emerson-p
Butler, Edward Wm.	San Diego	M.E. 164+29	53 Sequoia
[4]Butler, Humphrey B.	London, Eng.	LD	223 Encina
Butler, Laura Louise	Berkeley	Hist. 90·47+27	371 Roble
Butterfield, Albert Edward	Chino	Med. gr.	18 Alvarado
A.B., Southern California, 1922			
[4]Butterfield, Anna	Dubuque, Ia.	LD sp.	359 Roble
Buttrey, Adelbert John	Craigmont, Ida.	Hist. 114+54	29 Salvatierra
Buzard, Reynolds Lawrence	Berkeley	LD 22+11	Kappa Sigma
Bye, Sigurd Edward	Portland, Ore.	LD 92+35	504 Encina
[12]Byl, Donald Hennegen	San Jose	M.E. 7·181+263	205 Encina
A.B., Stanford, 1923			
[24]Cady, Vernon	Palo Alto	Educ. gr.	1770 Emerson
B.S., California, 1908; A.M., Columbia, 1917			
[12]Cahen, Robert Paul	San Francisco	Law gr.	233 Union
A.B., Stanford, 1923			
Cailleau, Armand M.	San Francisco	LD 82+47	17 Encina
Cain, Brighton C.	Salt Lake City, U.	Ent. 8·180+221	359 Encina
A.B., Stanford, 1923			
Cain, Homer Green	Santa Ana	LD 78·51+52	1102 Ramona-p
[13]Cairns, Earl Watson	Pasadena	LD 77–7	Alpha Delta Phi
[5]Caldwell, Horace	Taylor Springs, N.M.	Educ. gr.	University Nursery
A.B., Stanford, 1923			
[13]Callander, Ellen	Fargo, N.D.	LD 83+113	Kappa Kappa Gamma
Calvin, George F.	Philadelphia, Pa.	Phyl. gr.	557 Encina
A.B., Stanford, 1922			
Cameron, Clifford S.	Aberdeen, Wn.	LD 46+12	106 Encina
[5]Cameron, Francis	Stanford Univ.	Geol. 23·127+31	Phi Kappa Sigma
Cameron, Harold Wm.	Aberdeen, Wn.	LD 89+103	308 Encina
Cameron, Meribeth E.	Santa Monica	LD 94+167	Delta Delta Delta
[5]Camp, Jerry P.	Hattiesburg, Miss.	Econ. ‡ 55–15	635 Bryant-p
[4]Campbell, Clyde LeRoy	Altadena	Geol. ‡	110 Encina
Campbell, Daniel McPeak	Glendale	Econ. 85·47+26	Sigma Chi
Campbell, Edward Strong	Mare Island	LD 137+39	Chi Psi
[5]Campbell, Ian James	Wrights	LD 69+2	Theta Chi
Campbell, Irene Augustine	San Jose	Econ. 90·47+25	205 Roble
Campbell, John Donald	San Francisco	LD 132+6	Alpha Delta Phi
Campbell, John Frank	Pasadena	LD 41·80+12	LaurelC'rt,MP-mp
[1]Campbell, Mary Edna	Escalon	Span. gr.	244 Roble
A.B., Stanford, 1922, A.M., 1923			
[4]Campbell, Maude T.	Galveston, Tex.	Fr. gr.	315 Roble
A.B., Rice Institute, 1921			

[12]Campbell, Robert Barr, Jr.	Ontario	LD 60·24–7	336 Encina
[5]Campbell, Walter McN., Jr.	Alhambra	LD 26+2	Alpha Sigma Phi
Canfield, Laurence Picknell	Santa Cruz	LD 41–23	Sigma Chi
[3]Canning, John Bennet Ph.B., Chicago, 1913	Palo Alto	Econ. gr.	1535 Bryant
Cannon, Leonard MacLemen	Palo Alto	LD 71+72	301 Addison-p
Capell, Katherine F.	Council Bluffs, Ia.	LD 45+84	339 Roble
Card, George Holt	Denver, Colo.	Econ. 78·60+50	Chi Psi
[1]34Cardoza, Alfred Thos.	Palo Alto	LD 22·55+20	760 Homer-p
Carey, Clarence William	Palo Alto	LD 75–10	361 Lytton-p
Carey, George Edward	Palo Alto	Econ ‡ 97+0	361 Lytton-p
[23]Carle, Jackson Tyler	Lindsay	Law 113+112	Delta Chi
Carlsmith, Carl Wendell	Hilo, Hawaii	LD 49+50	108 Encina
Carlsmith, Margaret E. A.B., Stanford, 1922	Hilo, Hawaii	Med. gr.	1875 Sacramento,SF-sf
[3]Carlson,DonaldWarren	Milwaukee,Wis.	M.E. ‡ 5–10	
Carlson, Everett A.B., Stanford, 1920	San Francisco	Med. gr.	2217 Buchanan, SF-sf
Carlson, Osborn Herman A.B., Stanford, 1923	Kingsburg	C.E. 180+77	415 Encina
[5]Caranahan, Kenneth E.	San Jose	LD 94+10	Chi Psi
[4]Carpender, Willie Webb	LaCrescenta	Educ. gr.	109 Roble
Carpenter, Charles Benj. B.S., Washington, 1922	Pullman, Wn.	E.E. gr.	318 Union
[4]Carpenter, Francis T. A.B., Arizona, 1921	Gilbert, Ariz.	Educ. gr.	136 Encina
Carr, Robert Mack	Stockton	LD 46+37	Theta Chi
[12]Carrey, Albert Adolph, Jr. A.B., Stanford, 1923	Gilroy	Geol. 193+28	8 Union
Carriere, John Gerand	Washington, La.	LD sp. 45+50	505 Encina
Carskadon, Newton Babb	Keyser,W.Va.	LD 34–22	Kingscote
Carson, Carlton Mann A.B., Stanford, 1922	Palo Alto	Geol. gr.	1044 Bryant-p
[4]Carson, Charles Allen A.B., Arizona, 1921	CasaGrande,Ariz.	Educ. gr.	136 Encina
[1]Carter, Charles Vance	Oakland	LD 83+31	Delta Tau Delta
[12]Carter, John Ward	Riverside	LD 26+0	105 Encina
[4]Carter, Mary Taylor	Manila, P.I.	LD ‡	264 Roble
[5]Carvell, Margaret George	El Centro	Engl.-Jn. 101+83	263 Roble
Carver, Keath L.	Los Angeles	LD 88+99	730 Bryant-p
Carver, Lloyd Charles	Trident, Mont.	Law 140+60	225 Encina
Carver, Roy William A.B., Stanford, 1923	Artesia	Econ. 16·164+33	SigmaAlphaEps.

[4]Cary, Colin Reed — Mandan, N.D. — LD — 25 University-p
[234]Cary, William Sayre — Mandan, N.D. — Chem. gr. — 25 University
A.B., Stanford, 1922
[4]Case, Lloyd Norton — Santa Clara — Phys. gr. — 924 Lincoln, SC-sc
A.B., College of the Pacific, 1923
Case, Myron Durfee — Sunnyvale — LD 48·61+69 — 209 Hollenbeck, S-s
Case, Nelson Perry — Palo Alto — LD 115+163 — 201 Cowper-p
[1]Casey, Joseph Michael — San Francisco — LD — 114 Encina
Cassel, Chester — Los Angeles — Geol. 50·150+163 — 5 Sequoia
A.B., Stanford, 1923
Castner, Huntley — Los Angeles — LD 27+13 — Phi Kappa Psi
Cavanaugh, Robert Daniel — Los Angeles — Econ. 45·96+76 — Chi Psi
[4]Cavitt, George Washington — Tucson,Ariz. — LD sp. — 251 Hawthorne-p
[5]de Cazotte, Michel Marie — Palo Alto — LD 57·75+48 — 343 Middlefield-p
[234]Cerruti, Edvige Mary — San Francisco — Span. gr. — Madroño
A.B., Stanford, 1922
Chace, Frank Thompson — Stanton, Neb. — LD 37–16 — 424 Encina
Chaffee, Clare Speelman — Garden Grove — Chem. 90·44+13 — 348 Encina
[1]Chalmers,Harry Hollis — SaltLakeCity,U. — Law 14·91–22 — Kappa Alpha
Chamberlain, Robert Stoner — Palo Alto — LD 5·91+105 — 617 Waverley-p
[5]Chamberlin,Joseph C. — SaltLakeCity,U. — Ent. 45·124+197 — Lobata Lodge
[4]Chamberlin, Winnie E. — Los Gatos — LD sp. — Los Gatos-lg
[1]Chan, Gumdock — San Francisco — Med. gr. — Chinese Club
A.B., Stanford, 1922
[12]Chandler,CharlesTheo.,Jr. — San Diego — Econ. 118+46 — Phi Delta Theta
Chandler, Harrison G. O. — Hollywood — LD 43–8 — Delta Kappa Epsilon
Chaney, Mary Catherine — San Jose — LD 109+173 — 101 Roble
[1]Chang, King Yao — Canton, China — Econ. gr. — Chinese Club
University of Peking, 1913
Chang, David Kiong — Honolulu, T.H. — Phyl. gr. — Chniese Club
A.B., California, 1922
[1]Chang, Wei-Ping — Peking, China — Econ. ‡ 7+5 — 721 Waverley-p
Chantry, Kenneth Neal — Los Angeles — LD 56+2 — Delta Chi
[12]Chapman, Helen Hawley — Alma — LD 45+3 — 336 Roble
Chaquette, Marion Camille — Palo Alto — LD 46+21 — 317 Roble
Charles, Allan Earle — Palo Alto — LD 89+107 — 251 Lincoln-p
[234]Charles, Benjamin Cliffe — Los Angeles — LD 82–6 — Alpha Delta Phi
Charles, Shirley Weston — Palo Alto — Fr. 182+140 — 251 Lincoln-p
A.B., Stanford, 1923
Chase, Don Marquis — Atascadero — Hist. 2·132+55 — 26 Alvarado
Chase, Edwin Morey — Delta, Colo. — LD 11·45+29 — Phi Gamma Delta
[12]Chase, Grace Elizabeth — Stanford Univ. — LD ‡ 25+2 — 223 Roble
Chase, Howard Stephen — San Jose — LD 85+58 — Delta Tau Delta

[12]Chase, William Paul	Sebastopol	LD 23–22	251 Hawthorne-p
Chedister, Arthur William	Lemoore	LD 97+3	83 Sequoia
[4]Chesser, Thomas Riley	Franklin, Ariz.	LD ‡	
[5]Cheu, Henry Doc	Canton, China	LD 66+38	Chinese Club
[14]Chevalier, Ragnhild Marguerite A.B., Stanford, 1921	Berkeley	Fr. gr.	Madroño
[5]Chi, Kuo-Liang A.B., Stanford, 1923	Chili, China	Educ. gr.	Chinese Club
Chilcote, Russell Cooper A.B., Stanford, 1921	Los Angeles	Med. gr.	2201 Calif., SF-sf
Chorbajian, Albert Kalem A.B., Stanford, 1921	Fresno	Med. gr.	2321 Sac'to., SF-sf
Chrisman, Herman Henry A.B., Stanford, 1922	San Jose	Hist. gr.	313 Union
[5]Christie, Howard Chandler	Los Angeles	Econ. 127+63	DeltaKappaEpsilon
[12]von Christierson, Frank F. A.B., Stanford, 1923	San Jose	Psych. 8·179+178	542 Encina
Chuck, Faw-Yap A.B., Stanford, 1922	Honolulu, T.H.	Chem. gr.	Chinese Club
[1]Church, Margaret	Burbank	LD 7–12	242 Roble
[28]Churchill, Pauline W.	Bartlesville, Okla.	LD 28–2	157 Roble
Churchman, Hazel Vera A.B., Stanford, 1923	Santa Rosa	Sch. Ed. gr.	254 Roble
Cilley, Herbert Arthur	Long Beach	Phyl. 62+26	347 Ramona-p
[12]Claflin, Paul Cuddeback A.B., Stanford, 1923	Los Angeles	Econ. 84·103+24	Phi Delta Theta
[1]Clancy, Edward Bischoff	San Diego	LD 47·71+15	Phi Kappa Sigma
Clapp, Edwin Roosa A.B., Stanford, 1923	Santa Rosa	Engl. 181+337	87 Sequoia
Clapp, Elizabeth Earl	Burlingame	LD 43–11	239 Roble
[1]Clapp, Madge A.B., Upper Iowa, 1920	Santa Rosa	Hist. gr.	237 Roble
Clark, David Bridgman	Stanford Univ.	LD 91+45	4 Cabrillo
Clark, Donald Eastman	Stanford Univ.	LD 96+70	4 Cabrillo
Clark, Dorothy Louise A.B., Stanford, 1923	Petaluma	Hist. 135·68+32	340 Roble
[4]Clark, Egbert B., Jr. A.B., Stanford, 1920	San Francisco	Educ. gr.	223 Union
Clark, Esther Bridgman A.B., Stanford, 1921	Stanford Univ.	Med. gr.	1922 Sac'to, SF-sf
Clark, Everett Leonard A.B., Stanford, 1923	Fresno	C.E. 90·91+36	405 Encina
[1]Clark, Frances Naomi A.B., Stanford, 1918	San Jose	Sch. Ed. gr.	1022 Bird, SJ-sj

Clark, George Dickson A.B., Stanford, 1923	Menlo Park	C.E. 183+127	Box 184, MP-mp
Clark, George Stuart A.B., Stanford, 1922	Stanford Univ.	M.E. gr.	Delta Upsilon
Clark, Howard Marshall	Ashland, Ohio	Econ. 149+14	Phi Delta Theta
[34]Clark, Joseph Edward	Los Angeles	LD 49–13	Zeta Psi
[5]Clark, Leslie Madison	Sawtelle	Geol. 4·145+119	450 Melville-p
[13]Clark, Mary Jane A.B., Stanford, 1922	Los Angeles	Engl.-Jn. gr.	Kappa Alpha Theta
[12]Clark, Philip Corriston A.B., Stanford, 1921, Engineer, 1923	Stanford Univ.	E.E. gr.	Delta Upsilon
[23]Clark, Ray Eldon	Scobey, Mont.	LD 24–3	Boathouse
Clark, Thomas Stewart	Wilmington	LD 40+4	Phi Gamma Delta
[28]Clark, Truman Howe	Petaluma	LD 22–15	Alpha Kappa Lambda
Clark, Wayne Gerald	Santa Ana	LD 32·41+12	Theta Delta Chi
Clark, William A., Jr.	Venice	LD 76–13	61 Sequoia
Clarke, Bonita Fravel A.B., Stanford, 1923	San Jose	Hist. 180+97	224 Roble
[4]Clarke, E. Ethel A.B., Kansas, 1910	Los Angeles	Engl. gr.	Madroño
Clarke, James Fravel	San José	LD 46+10	Alpha Sigma Phi
[1]Clarke, Robert Thurmond	Los Angeles	LD 52–42	Zeta Psi
[1]Clayes, Alfred Irving	Anaheim	LD 0–14	125 Emerson
[1]Clayton, Laurence J.	FortWorth,Tex.	LD 5–15	Laurel Court, MP
[1]Clayton, Willis Sherman, Jr.	San Jose	LD 58–19	Phi Kappa Psi
Cleary, Gerald George	San Francisco	LD 67·44+14	San Carlos-SC
[23]Cleaveland, Loraine	Berkeley	Econ. 40·67+29	KappaKappaGam.
Cleaveland, Norman	Datil, N.M.	M.E. 179+17	Sigma Chi
Clendenin, Rob't James	Monmouth, Ill.	LD 45+42	Alpha Sigma Phi
Clifford, Charles Randall	Turlock	LD 47+6	358 Encina
Clifford, Connell A.B., Stanford, 1922	Kewanee, Ill.	Econ. gr.	115 Everett-p
[1]Cline, Ethel F. A.B., Marietta, 1915	Marietta, Ohio	Law gr.	140 Roble
[12]Clough, Albert Clarence	Alhambra	Econ. 92·32+38	Alpha Sigma Phi
[14]Clyde, Paul Hibbert A.B., Stanford, 1921, A.M., 1922	Victoria, B.C.	Hist. gr.	640 Waverley
[12]Coakley,Clyde Edwards A.B., Stanford, 1923	Stanford Univ.	C.E. 10·171+100	507 Encina
[4]Cobb, Alma Toleta	Fresno	LD ‡	237 Roble
[3]Cobb, Miles	Pasadena	LD 57–26	Alpha Delta Phi
[5]Coblentz, Richard	San Francisco	Law 102+28	17 Encina
[4]Coburn, Adelaide M. A.B., College of the Pacific, 1918	Mayfield	Engl. gr.	148 Roble

[12]Cochrell, Max R. Wichita, Kans. Econ. gr. 11 Salvatierra
A.B., Stanford, 1921
Cody, Bernard Anthony San Francisco Med. gr. 220 Golden Gate, SF-sf
A.B., Stanford, 1921
[12]Coen, Franklin Hugenin Monrovia LD ‡ 22–10 Phi Kappa Sigma
Coen, Richard Davis Monrovia LD 48·45+40 Phi Kappa Sigma
[4]Coffaney, Gertrude Gilroy LD ‡ 109 Roble
[1]Coffill, Wade Hampton Sonora LD 16+3 776 Palo Alto-p
[5]Coffin, Harry Tristram, Jr. Los Angeles LD 31–18 Delta Upsilon
[5]Cohan, Aaron David Stanford Univ. Econ. gr. 225 Union
A.B., Stanford, 1923
[4]Cohan, Milton M. Tucson, Ariz. Law ‡ 706 Cowper-p
[4]Cohan, Virginia C. Palo Alto Sch. Ed. gr. 706 Cowper-p
A.B., Missouri Valley College, 1917; A.M., Columbia, 1920
[5]Cohen, Marjorie San Francisco Engl.-Jn. 127–1 165 Roble
Cohen, Mark Madison Portland, Ore. Law gr. 564 Encina
A.B., Stanford, 1922
[12]Cohn, Arthur Cardinet San Francisco LD 63+51 229 Encina
[12]Cohn, Laurence Ted San Francisco LD 89+47 229 Encina
[1]Coke, James Hamilton Honolulu, T.H. LD sp. 9–10 Alexandria Hotel
Colby, George Wilbur Oakland LD 93+13 54 Sequoia
Cole, Cornelius, II Los Angeles LD 21–20 Beta Theta Pi
Cole, Sidney Walker Sacramento LD 65–10 51 Sequoia
[5]Colfelt, Natalye Adelma GlenLoch, Pa. Pol. S. gr. University Park
A.B., Vassar, 1921; A.M., Stanford, 1923
Colgan, Eugene Cyril Elyria, Ohio Econ. 64·74+0 Delta Tau Delta
Collett, Charles Elmer San Francisco Law 111+51 Delta Tau Delta
[5]Collette, Germaine Seraing, Belgium Engl. gr. Madroño
University of Liege, 1922
[4]Collins, Bethel M. Boise, Ida. Econ. gr. 105 Roble
A.B., Idaho, 1923
[4]Collins, Jeannette Mary Toledo, O. Sch. Ed. gr. 115 Roble
A.B., Radcliffe, 1913
Collins, Junior Jennings Los Angeles Law 134–1 81 Sequoia
[2]Colton, John H. Stanford Univ. C.E. 181+16 246 Encina
A.B., Stanford, 1923
[12]Colvin, Timothy Edward Piedmont LD 6·133+13 Phi Gamma Delta
[4]Coman, William M. Sacramento Educ. gr. 831 Kipling-p
A.B., Stanford, 1921
Comparet, Bertrand Lewis San Diego LD 40·89+24 1201 Palo Alto, M
[4]Compton, Madison Henry Los Angeles Sch. Ed. gr. 228 Union
A.B., California, 1917
Compton, Russell Leslie San Diego Econ. 49·91+4 39 Encina
Conard, Harold Shaver San Diego C.E. 180+123 Delta Chi
A.B., Stanford, 1923

Conard, Mildred Rovena	San Diego	Hist. 133+100	Pi Beta Phi
Condit, Thomas Ayers	Los Angeles	LD 45+44	Kingscote
[4]Connell, Helen Loretta	Los Angeles	Hist. gr.	214 Emerson-p
A.B., Washington, 1917			
Connolly, John Briggs	San Francisco	Law 147+100	323 Encina
Connolly, Robert Cottman	San Francisco	E.E. gr.	320 Encina
A.B., Stanford, 1922, Engineer, 1923			
Connolly, Thomas Edward, Jr.	Stockton	LD 68+8	Theta Chi
Conover, Arthur Brooks	Orange, N.J.	LD 93+118	Kappa Sigma
Conron, Calvin Halsey, Jr.	Modesto	LD 92+33	59 Encina
Conway, Mary Josephine	Los Angeles	LD 38+22	Menlo Park-mp
[1]Cook, Andrew Jackson	Anaheim	LD 5–14	125 Emerson-p
[4]Cook, Clyde Daniel	Asotin, Wn.	Educ. gr.	Sigma Chi
A.B., Washington State College, 1920			
[4]Cook, Edward Irwin	Sacramento	Pol. S. gr.	325 Union
A.B., Ursinus College, 1907			
Cook, H. Nelson	San Francisco	LD 29–15	209 Encina
[5]Cook, Lawrence Harvey	Palo Alto	M.E. gr.	157 Bryant-p
A.B., Stanford, 1921			
[1]Cook, Owen	Greencastle, Ind.	Phys. ‡	Sigma Nu
Cook, Robert Chambers	Ocheyedan, Ia.	LD 101+66	115 Encina
Cooke, William Clifford	Palo Alto	Med. gr.	2402 Calif., SF-sf
A.B., Stanford, 1922			
Cooke, William Hendrich	TerreHaute, Ind.	LD 44·45–6	Chi Psi
[4]Cooke, William Henry	Glendora	Hist. gr.	Mountain View
A.M., Pomona, 1921			
[5]Cooley, Chester Lynn	Pasadena	LD 67·49+20	346 Harvard, M
[2]Cooper, Helen	Modesto	LD 68·17+9	267 Roble
Cooper, Lloyd Edward	Roseville	LD 141+87	52 Sequoia
Cooper, Roger Joseph	San Francisco	LD 49+2	409 Encina
[12]Coovert, Dean J.	Portland, Ore.	Law 94·48–2	551 University-p
Coplen, James Ballou	Corona	LD 81·54+2	335 Union
Coppock, Kenneth R.	Sampsonton, Alta.	Econ. 45·92+82	12 Sequoia
Coppock, Ralph C., Jr.	Sampsonton, Alta.	Econ. 45·92+46	12 Sequoia
[1]Corby, Grant White	Los Angeles	Geol. gr.	Alpha Tau Omega
A.B., Stanford, 1922, A.M., 1923			
[23]Corey, Augusta Eleanor	Palo Alto	Ed. G.A. 44·65–18	909 Univ.-p.
Cornell, Elton Fred	Sunnyvale	Chem. 4·178+177	AlphaKap.Lamb.
A.B., Stanford, 1923			
Cornes, Mary Lida	San Jose	Cl. Lit. gr.	325 Roble
A.B., Stanford, 1922, A.M., 1923			
[23]Cosgrave, Margaret Eleanor	Fresno	LD 30+8	302 Roble
[4]Costabel, Violette A.	San Jose	Fr. gr.	402 Newhall, SJ-sj
A.B., College of the Pacific, 1922			

[5]Costello, Lorenz	Eau Claire, Wis.	Law 82·84+23	312 Union
Cota, Florencio M.	Jerome, Ariz.	M.E. gr.	316 Encina
A.B., Stanford, 1922			
[5]Cottrell, Clifton C.	San Jose	Law gr.	745 S. 10th, SJ-sj
A.B., Stanford, 1920			
[5]Cottrell, Lillian	Hebron, Neb.	Bact. 154+178	219 Roble
Cottrell, Lois Marie	Rockford, Ill.	Hist. gr.	545 Forest-p
A.B., Wisconsin, 1920; A.M., Stanford, 1923			
[4]Coulson, Charles H.	Campe Verde,Ariz.	LD sp.	
[5]Coulter, James Scholl	Frankfort, Ind.	Econ. 47·128+9	54 Sequoia
Coulthurst, Lawrence Joseph	San Diego	Chem. 79·105–3	Phi Kappa Sigma
[4]Court, Frank Willard	Davenport, Ia.	LD ‡	205 Union
Coverley, Harvey Mills	Los Angeles	Law 136+142	113 Encina
Covey, Frederick A.	Stanford Univ.	M.E. 205+256	85 Sequoia
A.B., Stanford, 1923			
Cowen, Philip Henry	Langdon, Alta.	LD 30–4	35 Sequoia
Cowing, Ralph Huffaker	Carson, Nev.	Law gr.	14 Union
A.B., Stanford, 1922			
[1]Cox, Alexander Bascom	Palo Alto	Pol.S.17·39–6	Hotel Palo Alto-p
Cox, Catherine M.	Stanford Univ.	Psych. gr.	25 Alvarado
A.B., Stanford, 1912, A.M., 1913			
Cox, Hope	Chappaqua, N.Y.	Law 98·44+37	261 Roble
[13]Coxhead, Ernest Browning	Berkeley	LD 5–25	62 Sequoia
[5]Coyle, Daniel Kenneth	San Jose	M.E. sp. 142–3	528 S. 2nd, SJ
[4]Cozzi, Daniel Oliver	Los Banos	App. Math. ‡	228 Union
[12]Craig, Harold Carter	San Francisco	M.E. 183+5	4641 25th, SF-sf
A.B., Stanford, 1923			
Craig, Joseph Allen	Piedmont	Phyl.-Med. 187+87	Kappa Sigma
A.B., Stanford, 1923			
[5]Cram, Eileen Mae	Colfax, Wn.	Econ. 90·53+88	945 Webster-p
[12]Cramer, Edwin Glenn	Santa Monica	LD 78–11	27 Sequoia
[5]Crandall, Kenneth H.	Los Angeles	Geol. 143+171	Phi Kappa Sigma
[5]Crandall, Richard Robbins	Los Angeles	Geol.47·153+222	Phi Kappa Sigma
Crase, Herbert Richard	Los Angeles	Pre-Clin. 102·84+72	542 Encina
A.B., Stanford, 1923			
Craven, Leonard Thomas	Spokane, Wn.	Econ.-Law 108·82–25	19 Cabrillo
[5]Craven, Margaret	Bellingham, Wn.	Hist. 63·94+156	375 Roble
Craven, Wilson	Bellingham, Wn.	Law 117+151	538 Encina
Cravens, Robert Irving	Los Angeles	Econ. 108+14	Zeta Psi
Crawford, Albert Hartley	Los Angeles	Law 51·67–26	Sigma Chi
[234]Crawford, Alonzo L.	Stanford Univ.	Hist.-Law 34·156+60	229 Union
Crawford, Casper Glenn	Dickinson,N.D.	LD 99+36	55 Sequoia
Crawford, Lynn Howard	Santa Ana	LD 53·48+30	348 Encina

Creglow, Loran Andrew A.B., Stanford, 1922	Rock Rapids,Ia.	Min.gr.	Wm.WarrenSch.MP-mp
[4]Crever, Dorothy Rose A.B., Stanford, 1921	San Jose	Math. gr.	14 Broadway, SJ-sj
Crever, Fred Emanuel	San Jose	LD 102+172	14 Broadway, SJ-sj
[4]Crever, Mildred Louise	San Jose	Ed. G.A. ‡	14 Broadway, SJ-sj
Crist, Frank Lee	San Francisco	Law 35·85+75	237 Encina
Crist, Marion Lowell	San Bernardino	LD 52·47+42	350 Encina
Crobaugh, Alva Bernard	Palo Alto	Econ. 108+123	718 Bryant-p
Crobaugh, Mervyn A.B., Stanford, 1919, A.M., 1920	Palo Alto	Econ. gr.	718 Bryant-p
[234]Crocker, George N.	San Francisco	LD 32+51	117 Encina
[34]Cromwell, Lewis Hall	Palo Alto	Law 90·13+13	218 Cowper-p
[34]Cronin, M. Alice A.B., Stanford, 1921	San Jose	Educ. gr.	190 S. 7th, SJ-sj
[12]Cross, Charles Burton	Merced	LD 98+7	120 Encina
Cross, Marion Francel	Ogden, Utah	LD 35–9	225 Roble
[12]Crump, Ross Owen	San Jose	LD 95+138	Rt.2, Box330, SJ-sj
[5]Crutcher, Ruth Cary	Stanford Univ.	Span. 58·37+17	Madroño
[1]Cuddeback, Murray William	Monolith	LD 40–19	Zeta Psi
[12]Culkin, Edmund A. A.B., Stanford, 1922	ColoradoSp'gs,Colo.	Geol. gr.	212 Union
Cull, Ruth Louise	Yakima, Wn.	LD 47+72	277 Roble
[1]Culp, Crozier Cordell A.B., Stanford, 1921, J.D., 1923	San Francisco	Law gr.	422 Encina
[3]Culp, George Joseph	Pacific Grove	LD 7·96+87	64 Sequoia
[34]Cummings, Benjamin F. A.B., Utah, 1913	Palo Alto	Fr. gr.	213 Emerson-p
Cummings, Beulah Mary	Los Altos	LD 44+27	275 Roble
[4]Cummings, Franklin A.B., California, 1919	San Rafael	Hist. gr.	Chi Psi
Cummings, Lloyd Franklin	Ferndale	LD 43+70	727 Addison-p
Cundall, Kenneth Newton A.B., Stanford, 1923	Alameda	Chem. 181+62	543 Encina
[1]Cunha, Dean A.B., Stanford, 1923	San Francisco	Law 180+119	Alpha Delta Phi
Cupid, Albert William A.B., Stanford, 1923	Watsonville	Law 186+8	509 Encina
[23]Curtner, Alberta	San Jose	LD 62·30+7	248 Roble
[5]Cutler, Harmon Edgar A.B., Stanford, 1923	Endicott, Wn.	Law gr.	445 Hamilton-p
Cypher, S. Clark	Arcadia	LD 33–6	Delta Chi
Dahler, Dorothy Inez	Woodland	LD 87+35	203 Roble

[2]Dale, Helen Lois A.B., Stanford, 1921, A.M., 1923	Palo Alto	Bot. gr.	1022 Forest Ct.-p
Dallas, Donald Alexander A.B., Stanford, 1923	Redlands	Med. gr.	2201 Calif., SF-sf
[5]Dallas, Madelaine Mary	Oakland	Psych. 104·56+19	Pi Beta Phi
[1]Dalton, Paul Jackson	Malin, Ore.	LD 24–12	Theta Chi
Daly, Charles Francis	Eureka	Econ. 45·81+46	330 Encina
[4]Daly, Esther T. C.	Chico	LD ‡	320 Roble
[5]D'Andrea, Martin A.	Stanford Univ.	LD 10·32+12	115 Encina
[4]Danneberger, Charles O. B.E., Illinois State Normal	Bisbee, Ariz.	Educ. gr.	312 Union
Dannenbaum, Mildred D.	Parsons, Kans.	Hist.-Jn. 128+86	304 Roble
[1]Darhanian, Arra	Los Angeles	Engl. 106·13+5	660 Waverley
Darling, Grace	Salt Lake City, U.	Hist. 95·40–5	338 Roble
Darling, Herbert Henry A.B., Stanford, 1923	San Francisco	Med. gr.	45 16th Av., SF
Darling, Velva G.	San Luis Obispo	LD 40·42–12	160 Roble
[4]Dary, Bernice A.B., Kansas, 1922	Kincaid, Kans.	Pol. S. gr.	256 Roble
Dass, Matta Amar	Peshawar, India	LD 42+7	441 Stanford, M-Box26,p
[5]Daugherty, Lyman Harry	Robinson, Ill.	LD 100+107	418 Florence-p
Daves, Delmer Lawrence	Los Angeles	LD 31+11	Sigma Alpha Epsilon
David, Leon Thomas	Vallejo	Law 8·102+97	201 Union
[234]Davidson, Helen P.	New Westmnst'r, B.C.	Educ. 78·43+61	147 Roble
[12]Davidson, Roland G.	Bethany, Conn.	Phil. 45·79+47	72 Sequoia
Davidson, William O.	Santa Barbara	LD 94+68	Delta Upsilon
Davies, David Lloyd	Portland, Ore.	LD 95+83	28 Sequoia
Davies, James M. A.B., Stanford, 1923	Los Angeles	Econ. 181+71	Delta Kappa Eps.
Davis, Archibald Wilson A.B., Stanford, 1923	Nutley, N.J.	Econ.-Jn. 82·98+29	9 Union
[1]Davis, Cleo Francis	Rochester, Pa.	LD	Kappa Sigma
[4]Davis, Delos Darwin A.B., Stanford, 1903	Mayfield	Educ. gr.	Mayfield
[12]Davis, Eugene Lewyn A.B., Stanford, 1923	Santa Maria	Geol. gr.	8 Union
Davis, Harold Hess A.B., Stanford, 1923	Salt Lake City, U.	Fr. 112·70+70	84 Sequoia
[12]Davis, Herbert Adlington A.B., Stanford, 1921, J.D., 1923	Burley, Ida.	Law gr.	207 Union
Davis, Paul Herbert A.B., Stanford, 1922	Long Beach	E.E. gr.	12 Union
Davis, Ruth Carol	Palo Alto	LD 37·57+42	169 Roble
Davison, Malcolm	Ontario	M.E. 90·36–9	331 Encina

Davison, Maynard P.	Honolulu, T.H.	Econ. 169+21	375 Channing-p
Dawes, Rupert Truman	Santa Ana	Law 119+4	Theta Delta Chi
Dawson, Clarence H.	Salt Lake City, U.	LD 45·96+52	4 Sequoia
Day, Arthur Grove	Baldwin Park	LD 45+65	27 Alvarado
Day, C. Edward	Salinas	LD 19–1	73 Sequoia
[234]Dean, Ardys Thelo	Berkeley	Engl. 127+108	407 Encina
[14]DeEds, Floyd	San Francisco	Med. gr.	2504 Sac'to, SF-sf
A.B., Western Reserve, 1916, A.M., 1920			
Deffebach, Charles Arthur	Los Angeles	Law 78·119+39	Kappa Sigma
A.B., Stanford, 1923			
Deffebach, John, Jr.	Billings, Mont.	LD 46+19	Alpha Sigma Phi
DeGroot, Dudley Sargent	Sierra Madre	Econ. 148+163	Sigma Nu
[4]DeHaven, Lee	San Francisco	LD	249 Roble
Delahoyde, Dorothy E.	Los Angeles	Hist. 135+68	Alpha Omicron Pi
[4]Delamarter, Frank A.	San Jose	LD ‡	746 Univ., SJ-sj
[4]Delahanty, Marie	San Francisco	LD sp.	221 Roble
Delbon, Montana	Turlock	Span. 90·93+120	109 Roble
A.B., Stanford, 1923			
[5]Delkin, James Ladd	Stanford Univ.	Hist. 74·62+2	553 Encina
Dellepiane, Henry Carl	San Francisco	Chem. 23·124+50	804 Bryant-p
[4]Delph, Grant E.	Tucson, Ariz.	Educ. gr.	415 Lytton-p
B.S., Pennsylvania, 1922			
[5]De Luca, Eugenio	San Jose	Fr. gr.	22 Mayellen, SJ-sj
A.M., Stanford, 1922			
Dement, Alice L.	Myrtle Point, Ore.	Sch. Ed. gr.	100 Roble
A.B., Stanford, 1922, A.M., 1923			
[4]Dempster, Hazel U.	Beatrice, Neb.	LD	559 Kingsley-p
[234]Denitz, Herbert S.	Los Angeles	LD 43·32+1	27 Encina
Dennis, Guy Hewitt	Los Angeles	LD 70+13	Alpha Delta Phi
[23]Depoyan, Rose	Fresno	LD 33+44	211 Roble
Detling, LeRoy Ellsworth	Gridley	Fr. gr.	310 Union
A.B., Oregon, 1921; A.M., Stanford, 1923			
Detrick, Lawrence Everett	Bishop	Pre.-Med. 135+33	332 Encina
[4]DeTuncq, Harold Rief	Palo Alto	LD	Ore. & Middlefield-p
DeVault, Aylett French	Stanford Univ.	M.E. 40·147+152	424 Encina
A.B., Stanford, 1923			
Devlin, Hartley Wm.	Los Angeles	LD 46+24	Phi Kappa Sigma
[5]DeVoss, James Clarence	San Jose	Psych. gr.	330 S. 9th, SJ-sj
A.B., Colorado, 1911, A.M., 1912			
Devoto, Jerome Loyal	San Francisco	LD 79+8	535 Byron-p
[4]DeVries, Martin	Tranquillity	Pol. S. 67·129–2	235 Union
Dexter, Winfield Curtis	Portland, Ore.	M.E. 181+4	506 Encina
A.B., Stanford, 1923			

[4]DeYoung, Henry	Colfax, Wn.	Educ. gr.	226 Union
A.B., Washington State College, 1920			
Dice, Frank Child	Pocatello, Ida.	LD 42–1	302 Encina
Dickenson, Charles Wm.	Madison, Tenn.	LD 94+37	89 Sequoia
Dickey, Robert Bernard	Madera	LD 29–11	Zeta Psi
[1]Dickey, Sanford M., Jr.	Isleton	Ent. 5·79+7	Sigma Alpha Eps.
Dickey, William James	Madera	Law 108+51	Zeta Psi
[3]Dickson, Glen Collins	Marshalltown,Ia.	LD 65·51–19	45 Encina
Dietrich, Margaret Clara	Los Angeles	LD 48+74	364 Roble
[4]Diffin, James Archie	Peoria, Ariz.	Sch. Ed.	149 Cowper-p
[3]Dikkers, Melchior T.	Menlo Park	Pre-Clin. 0–16	Park Lane,MP-mp
[4]Dillman, John Adams	Los Angeles	Econ ‡	107 Encina
Dills, Leslie Harrison	Yakima, Wn.	LD 92+61	Phi Gamma Delta
[4]Dills, Robert James	Phoenix, Ariz.	LD ‡	
Dinsmoor, A. Hale	El Monte	LD 47+25	30 Sequoia
Ditzler, Frank Wickham	Berkeley	LD 41+27	Chi Psi
[13]Dixit,Kanhaiya Lal	Jahaugirabad,India	LD 13–17	441 Stanford, M
[3]Dobbel, Edith E.	Palo Alto	LD 12·59+19	640 Forest-p
Dobbel, Lillian May	Palo Alto	Geol. 145+146	640 Forest-p
Dobbins, Lewis T.	Colusa	LD 48+13	28 Sequoia
Dobson, Leonard Garrard	Fresno	LD 48+71	140 Encina
Dodds, Alice	San Jose	LD 104+74	Chi Omega
[4]Doerr, Karl Philip	So. Pasadena	LD	138 Encina
Dole, Norman Dorset	Riverside	LD 87+3	Beta Theta Pi
[4]Dolfin, Helena May	San Jose	Hist. gr.	216 Roble
A.B., College of the Pacific, 1921; A.M., Stanford, 1922			
Dombaugh, Homer Kent	Gilroy	LD 38+7	206 Encina
Domoto, Toichi	Oakland	LD 89+82	Japanese Club
[5]Donoho, Truman L.	Fowler	Span. gr.	432 Homer
A.B., Stanford, 1922			
[5]Donohoe, Thomas Miller	Cordova,Alka.	Law gr.	151 Harriet-p
A.B., Stanford, 1923			
Donovan, Hugh Henry	San Francisco	Law gr.	1160 Bryant-p
A.B., California, 1921; J.D., Stanford, 1923			
[1]Dooley, A. Bertram	Santa Fe Springs	LD ‡	408 Encina
[3]Doran, John J.	Menlo Park	Cl. Lit. gr.	Menlo Park-mp
A.M., St. Mary's University,1901			
Dorrestein, Edward E.	Los Angeles	LD 75·45+6	Alpha Tau Omega
Dorris, Mildred	Phoenix, Ariz.	Math. 95·60+46	105 Roble
[4]Dorsey, Clyde Archer	Monterey	Chem. gr.	Monterey-m
B.S., Kirksville State Normal, 1917			
[4]Dorsey, Viola Marie	Menlo Park	Span. gr.	Coll.Sac.Heart,MP-mp
A.B., College of the Sacred Heart, 1923			

[4]Doub, Mabel E.	San Francisco	LD sp.	63 Roble
Dougan, Stanley B.S., Ohio, 1914	Palo Alto	Med. gr.	2018 Webster, SF-sf
[12]Doughty, Raeburn	Austin, Texas	Geol. 39-71+12	Sigma Alpha Eps.
Douglas, Chesley M.	San Jose	Econ. 154+99	1101 S. 1st, SJ-sj
[4]Douglas, Dorothy Jane	Tucson, Ariz.	LD ‡	324 Roble
Douglas, Herbert Victor	Newton, Miss.	Econ. sp. 111–3	115 Alma
[1]Douglass, Earl S.	Menlo Park	LD‡14–16 Box233,	MenloPark-mp
[1]Douglass, Joe Garner	Parker, Ariz.	Econ. 57–23	Sigma Nu
Douglass, Wilson Fisk	CouncilBluffs,Ia.	Chem. 142+141	247 Encina
[1]Dowd, Charles Dickson	Fresno	LD ‡	350 Encina
[3]Downer, Edward M., Jr.	Pinole	LD 11-12+0	22 Sequoia
[4]Downs, Katherine Lorna	Riverside	LD	203 Roble
Doyle, John Joseph L.	San Francisco	Med. gr.	2015 Webster, SF-sf
[23]Doyle, Virginia	Fresno	LD 24-26+6	202 Roble
Dozier, Dave Ford	Susanville	Pre-Clin.135-26+11	2286JacksonSF
[1]Dozier Paul C.	San Francisco	LD ‡ 6–9	564 University-p
Draper, Fred Douglas	Palo Alto	LD 94+15	328 Churchill-p
Draper, Ralph Clayton	Palo Alto	LD 44+25	731 University
[4]Dressler, Olie Goylon A.B., College of Emporia, 1914	Reedley	Chem. gr.	119 Encina
Dressor, Margaret Irene	Holtville	Span. 101-48+33	182 Roble
Drew, Harvey Linford	Pasadena	LD 94+16	Theta Xi
[1]Drew, Marguerite P. A.B., Swarthmore, 1920	Stanford Univ.	Pol. S. gr.	University Park
Driscoll,John Austin	Tompkinsville,N.Y.	Law 101+59	Phi Delta Theta
Drysdale, George Sidney	Palo Alto	Min. 10-158+126	100 Churchill
DuBois, Lloyd K., Jr.	Vancouver, Wn.	LD 91+23	Laurel Ct., MP-mp
[5]Duff, Frances Helen A.B., College of the Pacific, 1922	San Jose	Cl. Lit. gr.	Madroño
[12]Duff, Margaret Helen A.B., Stanford, 1923	San Francisco	Bot. 185+146	Gamma Phi Beta
Dulin, Harry Lewis	Covina	LD 40–21	140 Encina
Dunbar, William H. K.	Alameda	LD 80+1	Chi Psi
Duncan, Carl Dudley A.B., Stanford, 1923	Fresno	Ent. gr.	University Park
[1]Duncan, Donald Theo. A.B., Stanford, 1923	Los Angeles	Phil. 9-171+150	307 Union
[23]Dungan, Mary-Virginia	Exeter	LD 42-27+31	370 Roble
Dunlavy, Dorothy C.	Trinidad, Colo.	LD 92+55	Alpha Phi
[124]Dunlop, Rachel Thayer	Hartford,Conn.	LD 22-42+54	University Park
Dunmire, Samuel P.	Greensburg, Pa.	Econ. 102-46+51	Phi Delta Theta

[23]Dunn, Chester Wm. New Richmond, Ind. Math. 27·153+27 233 Encina
A.B., Stanford, 1923
[4]Dunn, William Wyly Phoenix, Ariz. Econ. 163+45 Alexandria Hotel
[1]Dunne, Michael C. Spokane, Wn. LD 0–16 347 Alma-p
[12]Durant, Raymond Case Los Angeles M.E. 45·139+25 250 Encina
A.B., Stanford, 1923
[4]Durbrow, Elsie Mae San Francisco LD 15+6 209 Roble
[2]Durston, Wayne Alvin Lodi Pre-Med. 115+58 21 Sequoia
Duryee, Lawrence M. Glen Ridge, N.J. M.E. 147+30 Phi Kappa Sigma
Dusinbury, James Myron Oakland LD 43+1 124 Encina
Dutton, John Ellis Los Angeles LD‡45–22 LaurelCourt, MP-mp
Dwight, Herbert McG. Stanford Univ. LD 145+170 Sigma Nu
Dwight, Marion Lorna Stanford Univ. Math. gr. 11 Mirada
A.B., Stanford, 1922
Dye, Alfred Thomas Logan, Kans. LD 41·99+41 Laurel Ct., MP-mp
[4]Dye, Elizabeth Louise Bakersfield LD ‡ 152 Roble
Eardley, Wendell A. Bakersfield LD 75+11 436 Encina
[1]Earl, Glenn Mattox Venice Geol. 80·103+48 25 University-p
A.B., Stanford, 1923
[124]Earle, Margaret Mae Palo Alto LD 46–8 619 Webster-p
[5]Easly, James Joseph Stanford Univ. Cl. Lit. 149+54 205 Union
[12]Ebisuya, Kazuo Iwakuni, Japan M.E. 180+111 Japanese Club
A.B., Stanford, 1923
Ebright, Miriam San Francisco LD 42+16 337 Roble
Eckhoff, Robert Holland San Rafael LD 49+36 52 Sequoia
[4]Edgar, Bertice Andrew Fairdale, Tex. LD ‡ Encina
[3]Edlin, Raymond Jerome San Francisco LD 9–11 105 Encina
Edmonds, Raoul Leland Stanford Univ. M.E. 57·165+41 Theta Chi
A.B., Stanford, 1923
Edmondson, Horace L. San Bernardino LD 33–4 444 Encina
[4]Edson, Fanny Carter Stanford Univ. Geol. gr. 10 Salvatierra
A.B., Wisconsin, 1910, A.M., 1914
[12]Edwards, Gerald J. Seattle, Wn. Econ. 5·176+99 327 Encina
A.B., Stanford, 1923
Edwards, Harry Jack San Diego Econ. 153+52 Phi Delta Theta
Edwards, Muriel E. Wallace, Idaho Med. gr. 281 Roble
A.B., Stanford, 1921
Edwards, Robert H., Jr. Los Angeles Law 42·132+67 Alpha Tau Omega
[4]Effinger, Margaret K., Ann Arbor, Mich. LD ‡ 214 Roble
Eggleston, Thomas H. Emmett, Idaho M.E. 169+68 423 Encina
Ehrhorn, Dorothy Mountain View Hist. 145+126 Box 56, MV-mv
Ehrhorn, Jack McF. Mountain View Min. 150+110 Mountain View-mv
[5]Elgin, Robert A. Madisonville, Ky. LD 10·88+19 115 Alma

[5]Eller, Charles Howe	Albuquerque,N.M.	LD 47+13	Theta Xi
Elliott, Elmer Ellsworth	Los Angeles	Econ. 128–7	Phi Gamma Delta
Elliott, Louis Dunshee	Los Altos	Chem. gr.	Los Altos-la
A.B., Stanford, 1911			
[4]Ellis, Harry	Safford, Ariz.	Law ‡	45 Encina
[4]Ellis, Marion Iris	Gilroy	Engl. ‡	Cowper Court-p
[4]Ellis, Ralph V.	Springfield, Mo.	Bot. ‡	347 Alma-p
Ellis, William Unger	Eureka	Chem. 10·172+190	207 Encina
A.B., Stanford, 1923			
[4]Elmer, Walter E.	San Jose	Educ. gr.	629 Elms, SJ-sj
B.L., Wisconsin, 1900			
Elmore, Garrett Henry	Stanford Univ.	Law 22·162+290	11 Alvarado
A.B., Stanford, 1923			
Elms, Myron Kenneth	Los Angeles	LD 85+22	525 Encina
[1]Elvey, Donald Mitchell	Los Gatos	Engl. 73–4	15 Lyndon, LG-lg
Ely, Northcutt	Phoenix, Ariz.	LD 140+78	Sigma Nu
[12]Emahiser, Robert Merritt	Palo Alto	LD 58–29	538 Cowper-p
[23]Emerson, Kenmore L.	San Francisco	LD ‡ 25–14	845 Waverley
Emerson, Wallace L.	Springfield, Mo.	Educ. gr.	112 Encina
B.A., Huron, 1916			
[4]Emmons, Robert Edmund	Manning, Ia.	LD sp.	742 Bryant-p
Empey, Lucas Wistar	San Jose	Pre-Med.86·49+35	35Devine,SJ-sj
Enderud, William Louis	Portland,Ore.	LD 47+32	11 Sequoia
Engelcke, Hans Paul	Cupertino	LD 49+39	Cupertino-c
Enos, Lawrence Marcel	San Francisco	Law 22·121+87	63 Sequoia
Enright, James Robert	Santa Cruz	Zool.-Med. 4·176+214	333 Union
A.B., Stanford, 1923			
[1]Entenza, John Dymock	Detroit, Mich.	LD ‡ 17–17	112 Encina
[4]Epps, Virgil Allen	Tucson, Ariz.	LD sp.	229 Union
Eremievsky, Serge A.	Petrograd, Russia	Engl. gr.	105 Emerson
A.B., Stanford, 1922			
[1]Erich, Reuben Robert	San Jose	M.E. 76+7	231 Encina
Erickson, Vance Bryant	Kalispell, Mont.	Chem. 132+45	529 Encina
[13]Erskine, Helen Margaret	Los Angeles	LD 30+47	308 Roble
Eskew, Clarence Eugene	Benton, Ill.	Econ. 89·91+36	Kappa Sigma
A.B., Stanford, 1923			
Espy, William Compton, Jr.	Palo Alto	LD 49+32	1052 High-p
Estus, Mildred Margaret	Palo Alto	Cl. Lit. gr.	920 Scott-p
A.B., Stanford, 1922			
Eva, James Meredith	Hilton	LD 73+3	249 Encina
Evans, Charles Orrick	Riverside	LD 61+54	122 Encina
[1]Evans, Daniel Webster	San Bernardino	Law gr.	231 Union
A.B., Stanford, 1922			

Evans, Evelyn Kathleen — Riverside — Hist. 21·117+78 — Pi Beta Phi
Evans, Fred Shirey — Manteca — LD 125+29 — 527 Hamilton-p
Evans, Mark Howard — Stanford Univ. — Min. sp. 241+37 — 522 Encina
Evans, WardwellDevore — SanBernardino — Econ.-Law 180+47 — 217 Encina
A.B., Stanford, 1923
Everett, Earl Alexander — Palo Alto — Law gr. — 315 Alma
A.B., Grand Island College, 1916; A.M., Nebraska, 1919; J.D., Stanford, 1923
Evers, Wendell H. G. — Biggs — LD 74+4 — 405 Kipling
[4]Evinger, Eleanor — Fresno — LD ‡ — 316 Roble
Ewell, Catharine D. — Canon City, Colo. — Math. 7·137+186 — 164 Roble
Ewert, William Van V. — Long Beach — LD 53+40 — 114 Encina
Ewing, Sydney Clement — Bedford, Eng. — Geol. 187+214 — 20 Sequoia
A.B., Stanford, 1923
[4]Exton, Bess — Fortuna — Educ. ‡ — 415 Lytton-p
[5]Eyre, Mary Brooks — Denver, Colo. — Psych. gr. — 20 Cabrillo
A.B., Stanford, 1922
Fagg, Charles E. — Riverside — LD 49–11 — 115 Encina
Fain, William Hart — Auburn — LD 47+12 — 500 Encina
[4]Fair, Dorothy A. — San Jose — LD ‡ — 364 Roble
[4]Fairall, Martha — Palo Alto — Law ‡ 16+20 — 410 Churchill-p
[2]Fairchild, Nellie I. — Kearney, Neb. — Fr. 162+100 — 102 Roble
Fairchild, Paul Lee — Santa Cruz — LD 39+18 — Alpha Delta Phi
[1]Fairclough, Gordon F. — St. Paul, Minn. — LD sp. 20–12 — Phi Gamma Delta
Falk, Curtis Lane — Eureka — Econ. 189+81 — Delta Upsilon
A.B., Stanford, 1923
[12]Falnes, Oscar Julius — Woodburn, Ore. — Hist. gr. — 947 Waverley-p
A.B., St. Olaf College, 1921; A.M., Stanford, 1922
[5]Farish, Edward Tilghman — Denver, Colo. — Min. 129+21 — 33 Sequoia
[5]Farish, Linn Markley — Woodland — Geol. 147+51 — Kappa Sigma
Farley, Raymond Mervy — San Francisco — Law 123+33 — 355 Encina
Farmer, Edward McNeil — Alhambra — Ed. G.A. 180+252 — 556 Encina
A.B., Stanford, 1923
[1]Fassoth, Paul N.D. — Kipahulu, Maui, T.H. — LD 6–10 — 203 Encina
[4]Fast, Harry E. — Bloomdale — Sch. Ed. gr. — 215 Encina
B.A., Ohio State, 1921
Faucette, Thomas F. — Rexburg, Idaho — Engl.-Jn. 97·99+47 — 1157 Ramona
A.B., Stanford, 1923
[3]Faulkner, Robert N., Jr. — San Mateo — LD 50–2 — 412 Hurlingham, SM-sm
[3]Faust, Henry Gordon — Monaca, Pa. — LD 5–13 — 222 Encina
[2]Faustino, Leopoldo Alcaraz — Manila, P.I. — Geol.
B.E., Ohio State, 1917; A.M., Stanford, 1922
Faville, Richard W. — Portland, Ore. — M.E. 186+18 — Beta Theta Pi
Fay, Kenyon Tudor — Los Angeles — LD 51·37+8 — 301 Encina

Fay, Sheldon Paige	Los Angeles	LD 46+29	51 Sequoia
[5]Fearing, Franklin Smith A.B., Stanford, 1923	Palo Alto	Psych. gr.	177 Tasso-p
[5]Fendler, Harold Altman A.B., Stanford, 1922	Los Angeles	Law gr.	301 Union
Fennemore, Richard M.	Phoenix, Ariz.	LD 79+9	Kappa Alpha
Fenner, Beatrice Alethea A.B., Stanford, 1922, A.M., 1923	Palo Alto	Math. gr.	602 Cowper-p
Fenton, Frank L. A.B., Stanford, 1923	Santa Rosa	Engl. 84·111+87	563 Encina
[4]Fenton, Norman A.M., Harvard, 1918	Tempe, Ariz.	Psych. gr.	567 Lincoln-p
Ferguson, Kenneth Loveland	Palo Alto	LD 95+40	Alpha Sigma Phi
Fernish, Charles A. A.B., Stanford, 1921	Santa Clara	Med. gr.	2321 Sac'to, SF-sf
Ferrando, Aldo	Butte, Mont.	LD 42·50+9	35 Sequoia
[5]Ferris, Winifred Jeanette A.B., California , 1918	Berkeley	Span. gr.	Madroño
Ferry, Mabel Farwell A.B., Stanford, 1923	San Diego	Engl. 110·75+81	167 Roble
Feusier, Cecile Marie	San Francisco	LD 49+32	344 Roble
[5]Fewel, Alan James	Fresno	Law 60·61+18	204 Union
[34]Fewel, Richard W.	Fresno	Econ. 21–23	205 Union
Field, John, 2d A.B., Stanford, 1923	Philadelphia, Pa.	Chem. 189+207	1636 Emerson-p
[234]Findley, Frank Miller	Palo Alto	LD 61–22	Zeta Psi
[1]Finley, Mildred Dinsmore A.B., Stanford, 1923	Los Angeles	Econ.92·90+136	KappaKappaGam.
[12]Finneran, Leo Francis	Ashland, Ore.	LD 22–19	1047 Ramona
[1]Fish, Frances Cecilia	Palo Alto	Fr. 119+30	308 Lincoln-p
[1]Fish, George Calder A.B., Washington and Jefferson, 1920	Millsboro, Pa.	Pol. S. gr.	Phi Kappa Psi
[12]Fishburn, John E., Jr.	Los Angeles	Econ. 9·121+109	DeltaKappaEps.
[5]Fisher, Frederic R.	Manila, P. I.	Econ.4·161+144	Delta Upsilon
[5]Fisher, Ross Clark A.B., Stanford, 1922	Spokane, Wn.	Law gr.	231 Union
Fisher, William Lyle A.B., Stanford, 1923	Coalinga	Econ. 45·136+107	56 Sequoia
[4]Fitzgerald, Robert Brassil A.B., Arizona, 1923	Tucson,Ariz.	Engl. gr.	576 Hale-p
[5]Fitzhugh, Anna Thornton	Los Angeles	LD 75+12	Alpha Omicron Pi
[124]Fitzhugh,WilliamM.,Jr.	San Francisco	LD sp. 33–8	469 Homer
[4]Fitzpatrick, Frank Charles	San Jose	Educ. 41+34	224 Union
Flagler, Paul	Hollywood	LD 46–1	108 Encina

Flanagan, James A.	Kenton, Ohio	Law gr.	14 Union
A.B., Miami, 1921			
[124]Fleischman, Charles C.	San Francisco	Law 129+69	305 Encina
[5]Fleming, Robert Carlile	Lincoln	Hist.-Law 153+10	Theta Chi
Flesher, Beatrice Elise	Denver, Colo.	LD 62+40	222 Roble
Fletcher, Charles Gross	San Diego	Pol. S. 120+14	Phi Delta Theta
Fletcher, Hugh Mackay	Toronto, Can.	Econ. gr.	650 Waverley-p
A.B., British Columbia, 1919; A.M., Stanford, 1920			
Flint, Curtis Earl	Bellflower	LD 32+2	Sigma Nu
[3]Flippen, Virginia P.	Orange	Sch. Ed. gr.	Alpha Omicron Pi
A.B., Stanford, 1921			
[13]Flood, Raymond Oliver	San Francisco	LD 126+40	Phi Delta Theta
[5]Florcken, Herbert G.	Los Angeles	Econ. 157+226	168 Bryant-p
Flowers, Esther May	Pasadena	Ed.G.A.140+24	KappaAlphaTheta
[4]Flowers, Evelyn Grace	Pasadena	Educ. gr.	Madroño
A.B., Stanford, 1920			
[12]Flowers, Marion Franklin	Modesto	LD 25–23	450 Encina
[1]Flowers, Montaville D.	Pasadena	Geol. 66·48+44	6 Union
Fogg, Philip Shearer	Palo Alto	LD 93+136	1404 Bryant-p
Follansbee, George S., Jr.	Los Angeles	LD 93+75	Theta Xi
[4]Foley, Mary	Menlo Park	Cl.Lit.gr.	Coll.Sac.Heart,MP-mp
A.B., College of the Sacred Heart, 1922			
Follis, Donald Charles	Stanford Univ.	M.E. sp. 4·172+52	438 Encina
Forch, Dorothy Lucille	Nampa, Idaho	Engl.-Jn. 90·50+24	259 Roble
[3]Ford, Harriet Allena	Los Angeles	LD 11+0	358 Roble
[4]Fores, Kathleen Marjorie	San Francisco	LD sp.	318 Roble
Forker, Floyd Wilson	Los Angeles	LD 38–11	Laurel Court, MP-mp
[3]Forrest, Edwin Llewellyn	San Francisco	LD 15+12	121 Encina
Forster, Albert	Stanford Univ.	Geol. 201+169	Theta Xi
A.B., Stanford, 1923			
[5]Forster, Donald Francis	Watsonville	LD 13·88+19	11 Salvatierra
Forsyth, George T., Jr.	Portland, Ore.	LD 81+6	433 Encina
[4]Forsyth, Ruth Agnes	Gilroy	Geol. gr.	244 Roble
B.S., California, 1909, M.A., 1916			
Fort, Lois	Los Angeles	LD 92+65	228 Roble
Fortine, Dwight Hugh	Long Beach	LD 50+45	36 Sequoia
Foster, Frances	Stanford Univ.	Phyl. 35·69+31	22 Lasuen
[4]Foster, Homer Peter	Anaheim	Pol. S.	226 Union
B.S., Washington State College, 1914			
[5]Foster, Walter Blair	San Francisco	Econ. 118+9	Zeta Psi
Fowle, Lee Charles	Red Wing, Minn.	LD 77–3	Sigma Alpha Epsilon
Fox, Leo Sanor	Los Angeles	Geol. 24·143+7	Sigma Chi
Fox, Lois Ione	Palo Alto	LD 45+62	1101 Waverley-p

Foye, Charles Edward	San Francisco	LD 94+118	Sigma Nu
Frame, Paul Warren B.S., Washington, 1916	San Francisco	Med. gr.	S.F.Hosp., SF-sf
[4]Francis, Samuel A. M.A., California, 1922	San Mateo	Math.	11 W. Bellevue, SM-sm
Frank, Eddie	San Francisco	LD 45+0	52 Encina
[1]Franklin, Altharetta B. A.B., Occidental, 1922	Carpinteria	Sch. Ed. gr.	Madroño
Franklin,AnnaComstock A.B., Stanford, 1920	StanfordUniv.	Med. gr.	1922 Sac'to, SF-sf
[12]Franklin, Charles Scott	Stanford Univ.	Geol. 130+5	San Juan Hill
Franklin, Geraldine	Carpinteria	Econ. 12·121+19	Delta Gamma
Franklin, John Curtis	Stanford Univ.	LD 46+49	17 Mirada
Franklin, Josephine	Carpinteria	Econ. 12·123+28	Delta Gamma
Franklin,LloydJackson A.B., Stanford, 1923	SanBernardino	M.E. 182+19	Theta Chi
Franklin, Walter King A.B., Stanford, 1922	SanBernardino	M.E. gr.	Theta Chi
Frantz, Adolph Ingram B.D., Yale, 1920; B.A., Taylor, 1916	Shafter	Engl. gr.	265 Channing-p
Frasse, Irvin A.	San Jose	LD 44+28	198 S. 10th SJ-sj
[5]Frazier, Clarence Mackay	San Francisco	LD 33–7	Phi Kappa Psi
Frazier, George Martin	Eagle Rock	LD 44+14	Delta Chi
[5]Fredericks, John D., Jr.	Los Angeles	Law 18·129+14	Laurel & Oak-p
[4]Fredrick, Florence Thompson	Ojai	Hist. ‡	205 Roble
[1]Freeman, Morton Smith	Lincoln, Neb.	LD ‡ 15–1	564 University-p
Freer, George Gaylord A.B., Stanford, 1923	Ashland, Ohio	Econ.108·74+12	AlphaTauOmega
[234]Freidenrich, David, Jr.	Alameda	LD 30+1	429 Encina
French, David Dye	Pasadena	Law ‡ 41–15	138 Encina
[1]French, Florence E.	Los Angeles	LD 60+90	148 Roble
[134]French, Herbert Hutton	Oakland	LD ‡ 15+5	Alpha Tau Omega
French,SamuelWilcox	Ashtabula,Ohio	M.E. 177+107	338 Encina
French, William Oscar, Jr. A.B., California, 1920; A.M., Stanford, 1923	Oakland	Med. gr.	1518 4th ave., SF-sf
Friebel, Helen Mae	Whittier	LD 70+22	212 Roble
Friedlander, Richard	San Francisco	LD 47+42	409 Encina
Frink, Frederick Wm.	Palo Alto	LD 95+112	943 Bryant-p
[23]Frink, Marjorie Mae	Palo Alto	Econ. 90·33+26	943 Bryant-p
Fritschen, H. William A.B., Stanford, 1921	San Francisco	Med. gr.	3544 Mission, SF-sf
Fry, Orvin Philip	Benicia	LD 43+25	205 Encina
Frye, Frank Augustus, Jr.	San Diego	LD 49+46	Phi Kappa Sigma

Frye, Frank Brewster	Redlands	LD 29–17	141 Encina
Fueller, Charles McE.	Whittier	LD 93+80	430 Encina
Fuendeling, Mervyn J.	San Francisco	Chem. 87·48+11	536 5th ave., SF
[4]Fugle, Forrest Francis	Los Angeles	LD	Encina
Fujinaga, Ernest Sota	Hakalau, T.H.	LD 85+114	637 Emerson-p
Fuller, Dana Lloyd	San Francisco	LD 67+22	Delta Kappa Epsilon
[5]Fuller, Frank W., Jr.	San Francisco	Law4·111+53	Delta Kappa Epsilon
Fuller, Helen Baker	Fresno	LD 52·47+12	173 Roble
Fuller, Lon Luvois	El Centro	Law 53·82+118	Delta Chi
[124]Fullerton, Dick P., Jr.	San Francisco	LD 109+57	Beta Theta Pi
Fulton, Ruth Vivia M.A., British Columbia, 1919	Vancouver,Canada	Chem. gr.	3 Lasuen
Furstenhoff,Georgette University of Brussels, 1921	Brussels,Belgium	Food Res. gr.	510 Waverley
Gage, Daniel Dudley, Jr.	Los Angeles	Law 153+149	544 Encina
Gage, William Richard	Los Angeles	Pol. S.-Jn. 143+0	544 Encina
[5]Gagos, Kenneth A. A.B., Stanford, 1922	San Francisco	Chem. gr.	1001 Cowper
[12]Gagossian, Henry Tsolog	Fresno	LD 62+31	15 Salvatierra
[4]Gallager, Edward D. A.B., Valparaiso, 1912	Kelseyville	Educ. gr.	1001 Cowper
Gallegos, Percy Beales A.B., Stanford, 1921	San Francisco	Med. gr.	3127 Wash., SF-sf
Gambell, Charles Francis	Willows	LD 45·42+37	Theta Delta Chi
Gammon, Cyril T.	Hood	LD 70+4	Sigma Alpha Epsilon
[4]Gandy, Robert Arvon	Riverside	LD	304 Union
Gardner, Kenneth Drake A.B., Stanford, 1923	Oakland	Pre-Clin. 183+169	324 Encina
Garner, Dwight A. A.B., Stanford, 1923	Minneapolis, Minn.	Econ. 135·45+39	MountainView-p
[4]Garrett, James O. A.B., Texas Christian University, 1918; M.A., 1922	Stephenville, Texas	Span. gr.	27 Encina
[4]Garrett, Lula May A.B., California, 1922	Ashdown, Ark.	Hist. gr.	246 Roble
Garten, Ruth Muriel A.B., Stanford, 1923	Long Beach	Pre-Clin. 98·90+84	117 Roble
[1]Garth,JamesWilliam,Jr.	Beaumont,Tex.	Econ. 131·49+28	831 Bryant-p
Garth, William LeRoy A.B., Stanford, 1922	Palo Alto	Med. gr.	831 Bryant-p
Garvin, Priscilla Ash A.B., Stanford, 1922	Billings, Mont.	Econ. gr.	Kingscote
Gaspar, Louis Alfred R.	Honolulu, T.H.	LD 45+72	450 Encina
[4]Gates, Arthur Loren A.B., Northwestern, 1903	Los Altos	Educ. gr.	Los Altos-la

[4]Gault, Francis Noble — Gilbert, Ariz. — Sch. Ed. gr. — 1121 Bryant-p
B.S., Ohio Wesleyan, 1904

[4]Gault, Viva G. G. — Gilbert, Ariz. — Latin gr. — 1121 Bryant-p
B.A., Colorado, 1906

Gay, Milus Osgood — Philadelphia, Pa. — LD 78·36+22 — W.WarrenSch.,MP

[234]Geiger, Mary B. — Santa Clara — Geol. gr. — 491 Lafayette, SC-sc
B.A., Illinois, 1919

Genereaux, Raymond P. — NewYork,N.Y. — LD 121+2 — Phi Kappa Psi

Gentry, Harold Goodman — Redlands — Med. gr. — 2215 Buchanan, SF-sf
A.B., Stanford, 1923

[4]George, George Rodney — San Francisco — LD — 21 Encina

[4]Gerhardt, Peter Weston — San Francisco — LD — 328 Union

[3]Gerstle, Mark Lewis, Jr. — San Francisco — Pre-Med.125·10+2 — 2300Wash.,SF

Gertmenian, Harold A. — Pasadena — LD 19·62+73 — 14 Sequoia

Geyer, Harold Clinton — Burley, Ida. — Econ. 72·94+32 — 224 Encina

Gibbons, Lewis Alberto — Los Angeles — LD 47·47+21 — SigmaAlphaEpsilon

Gibbons, M. Virginia — Los Angeles — Engl.-Jn. 89·86+123 — Sigma Kappa

[5]Gibbons,MortonRaymond — SanFrancisco — Pre-Med.92+25 — SigmaAlphaEps.

[4]Gibbs, Mack Willis — Tucson, Ariz. — LD ‡ — 106 Encina

Gibbs, Marion Wallace — Pasadena — Span. 182+56 — Kappa Kappa Gam.
A.B., Stanford, 1923

[5]Gibson, Gwynnyth Ritchey — San Diego — Engl. gr. — 159 Roble
A.B., Southern California, 1922

[12]Gidal, Harry Bernard — San Francisco — Med. gr. — 1920 Sutter, SF-sf
A.B., Stanford, 1922

[5]Gifford, C. Dickenson — Stanford Univ. — Geol. 83·89+0 — Sigma Alpha Eps.

[23]Gifford, Richard A. — Hesperus, Colo. — Econ. 24·35+1 — Mayfield

[1]Gilbert, Giles — Portland, Ore. — LD 13+3 — 57 Sequoia

[5]Gilchriste, Frank Cooper — San Mateo — Econ. 132–1 — 105 Tilton, SM-sm

Gilkey, Wallace Alfred — Stanford Univ. — Chem. gr. — 255 Alma
A.B., Stanford, 1922

[23]Gill, Burgo Doyle — Florida — Math. gr. — Wm.WarrenSch.-p
B.S., Florida, 1921

[4]Gill, John — Redwood City — Educ. gr. — 50 Avendale, RC-rc
A.B., College of the Pacific, 1912

[1]Gill, Lake S. — Palo Alto — Bot. 54·127+108 — 322 Encina-p
A.B., Stanford, 1923

[5]Gill, Roland Jerome — Spokane, Wn. — Econ. sp. 109+2 — Alpha Delta Phi

[12]Gillen, James Simon — Sheboygan, Wis. — Law 50·91–6 — Alpha Sigma Phi

Gillett, Andrew Lewis — Carmel — LD 46+3 — 245 Encina

Gillett, Thomas Robert — Carmel — LD 38–3 — 245 Encina

[1]Gillette, Landa Van A. — GrantsPass,Ore. — LD 45–19 — 328 Encina

[4]Gilloon, Frank Joseph — Pasadena — Sch. Ed. gr. — 404 Everett-p

[3]Gilpin, Dorothy Helen	Hanford	LD 15+11	148 Roble
[1]Ginella, James Arthur	San Francisco	LD sp. 1–12	
Givan, Charles Vernon	Sacramento	LD 7·92+109	328 Encina
Gladding, Helen Adeline	Lincoln	LD 50–1	Alpha Omicron Pi
[1]Gladrow, Herbert Charles	Oak Park	LD sp. 11–15	635 Bryant-p
[5]Gladstone, Jacob Bernard	Palo Alto	LD sp. 15·69+8	840 Guinda-p
[12]Glann, Blanche Estella	Mountain View	LD 75+83	Mountain View-mv
Glassford, Helen Nelson	San Francisco	LD 73·51+50	322 Roble
Glauber, Earl Isaac	Los Angeles	LD 9·82+49	535 Byron
Glenn, Paul Eugene	Bakersfield	Law 77·73+12	430 Encina
[4]Glenn, Ray Fielding A.B., Nebraska, 1920	Univ. Place, Nev.	Educ. gr.	415 Lytton-p
Gobar, Franklin Harold A.B., Stanford, 1921	San Francisco	Med. gr.	224 Twin Peaks, SF-sf
[12]Gobey, Arthur Jesse	San Francisco	LD 14–23	Delta Tau Delta
[12]Goddard, Philip Hubbard A.B., Stanford, 1921	Long Beach	Law gr.	231 Union
Godfrey, Harry Allen	Visalia	LD 36+5	119 Encina
[4]Goggin, William Alfred Ph.B., Brown, 1919	Manchester, N.H.	Educ. gr.	936 Palo Alto, M-p
Goldman, Robert Louis	San Francisco	Econ. 135+105	235 Encina
Goldwater, Richard Michel	Los Angeles	LD 45+53	447 Encina
Gomes, Joseph Vincent A.B., Stanford, 1922	Campbell	Law gr.	216 Encina
Gonzales, Francisco Leopoldo A.B., Stanford, 1922	San Jose	Med. gr.	2201 Calif., SF-sf
[24]Goodenough, Florence A.M., Columbia, 1921	Perth Amboy, N.J.	Psych. gr.	Kingscote
[4]Goodrich, Lewis J., Jr.	Santa Barbara	LD ‡ 18+14	139 Encina
[1]Goodrich, Wilton Dow	San Joaquin	LD 4–11	17 Alvarado
[24]Goodridge, Thaddeus W. B.A., Trinity College, 1892	Hartford, Conn.	Fr. gr.	510 Waverley
[4]Goodrie, Miranda	Grafton, N.D.	LD ‡	355 Roble
[4]Gordon, George Louis	Boulder Creek	Educ.‡17+20	Santa Cruz ave.-MP
Gordon, Leslie Oral	Santa Ana	LD 35–16	334 Encina
Gorham, Curtis Byron	San Diego	Ch.-Med.128·47+52	R.D.1, B294-p
[5]Gorrell, Leslie Ewing, Jr.	Palo Alto	Min.139+57	Sigma Alpha Epsilon
Gosslin, William Leslie	Portland, Ore.	LD 48+70	117 Encina
[4]Gottenberg, Mabel Fern B.S., California, 1913	San Jose	Chem. gr.	65 Ashbury, SJ-sj
Gottschalk, William, Jr.	Venice	LD 47+35	402 Encina
[1]Gould, Harry Allen Engineer, Technological Institute, Petrograd, 1918	Stanford Univ.	E.E. gr.	555 Waverley

[1]Gove, Richard Leonidas A.B., California, 1922	Berkeley	Law gr.	1157 Ramona-p
Gowell, Francis Winchester	Palo Alto	LD 40–16	538 Cowper-p
[4]Gower, Alice Drusilla	Los Angeles	LD sp.	349 Roble
Gower, Marian Ruth	Santa Barbara	Hist. 45·95+121	Delta Delta Delta
[1]Grable, Goss Silas A.B., Stanford, 1922	San Jose	Hist. gr.	344 Hull, SJ-sj
[1]Grace, Frank Joseph, Jr.	San Francisco	LD 6–12	19 Encina
Grace, Thelma A.B., Stanford, 1923	San Francisco	Hist. 108·73+26	Chi Omega
Grace, Thomas Joseph	Santa Rosa	LD 89+62	Phi Gamma Delta
Graham,ChalmersGeorge A.B., Stanford, 1919	SanFrancisco	Law gr.	231 Union
Graham, Donald Wilkinson	Pasadena	LD 92+49	Phi Kappa Sigma
[12]Graham, Grayson Bard	Los Angeles	LD 43–3	Alpha Sigma Phi
[4]Graham, Lilias May A.B., California, 1922	Lodi	Ger. gr.	236 Roble
Graham, Lloyd Edgar	Stanford Univ.	Phys. 72·77+64	16 Encina
Granger, Neil P.	Orange	Law 135+56	Beta Theta Pi
[3]Graves, Alden Matthew	San Francisco	LD 16–1	200 Encina
[1]Graves, David Dunbar	Los Angeles	LD 16–3	County Road
Graves, Dick Wedgwood	Ogden, Utah	Phil. 133+128	Phi Kappa Psi
[12]Graves, Jack Hiram	Willows	LD 30+1	Theta Delta Chi
Graves, John Dunbar	Hollywood	LD 121+77	Alpha Tau Omega
Graves,LauraChatfield B.S., Colorado Agricultural, 1912; A.M., Stanford, 1923	FortCollins,Colo.	Math. gr.	157 Iris, RC-rc
Gravestock, Warren Edward A.B., Stanford, 1923	Palo Alto	Econ. 184+123	Box 68, R.1-p
[234]Gray, Earl Haskins	Petaluma	LD 57+7	351 Encina
[1]Gray, Leslie George	Palo Alto	LD 72+28	643 High-p
Green, Bert Marion	Fresno	LD 46+8	Theta Chi
Green, Copeland	Long Beach	M.E. 42·137+113	540 Encina
Green, Frances Myers A.B., Stanford, 1923	Glendale	Fr. 183+291	363 Roble
[4]Green, Marie Beatrice	Courtland	LD	351 Roble
[4]Green, Raymond Elwood B.S., Idaho, 1922	Bridger, Mont.	Educ. gr.	115 Alma-p
Green,Thomas Edwards A.B., Stanford, 1923	StanfordUniv.	Econ. 185+100	13 Salvatierra
Greenacre,EstherFlorence	Greeley,Colo.	LD 47+42	326 Roble
Greene, Earnest Sylvan	Campbell	LD 49+71	Box 122, Campbell-c
[4]Greene, Harold Hartley	Columbia, Mo.	LD ‡	110 Grand, PG-pg
Greene, Harry Ashland, Jr.	Monterey	M.E. 148+173	43 Sequoia

[12]Greene, Helen Hartley A.B., Stanford, 1923	Columbia, Mo.	Zool. 90·92+87	KappaAlphaTheta
Greene, Raymond G.	Billings, Mont.	Geol. ‡ 16–12	Billings, Mont.
Greene, Thomas G., Jr.	Portland, Ore.	Law 177+122	357 Encina
Greenleaf, Sidney Nelson B.S., Washington, 1920	Seattle, Wn.	Law gr.	429 Forest-p
[1]Greenleaf, Thomas Harold	Los Angeles	LD sp. 12–7	
[5]Greenly, Maurice G. A.M., Stanford, 1923	Honolulu, T.H.	Educ. gr.	499A Seale-p
Greenshaw,UrsulaAdelaide B.A., Vassar, 1921	Los Angeles	Med. gr.	821 38th ave., SF-sf
[1]Greenwood, Don Layton	Los Angeles	Law 97–10	Delta Kappa Epsilon
Gregersen, Albert Ingstrup A.B., Stanford, 1923	Solvang	Geol. 7·181+228	525 Forest-p
Gregersen, Halfdan Ingstrup A.B., Stanford, 1922	Solvang	Span. gr.	525 Forest-p
[5]Gregersen Magnus Ingstrup	Solvang	Bot. 155+202	525 Forest-p
[124]Gregerson,DiamondEarl	San Francisco	Hist. sp. 19·40+1	627 Waverley
Gregory, Elizabeth Jackson A.B., Stanford, 1923	Pasadena	Hist.-Law 180+24	Sigma Kappa
[1]Gregory, George Lowell	Normal, Ill.	LD ‡	
[124]Gregory, John Munford	San Francisco	LD 30+1	Beta Theta Pi
[12]Greiner,FrancisLaSha	PortAngeles,Wn.	LD 64+9	18 Encina
[23]Greppin, Ernest H.	Los Angeles	LD 67+0	Alpha Sigma Phi
[4]Griebling, Chester F. B.A., Ohio State, 1921	Stanford Univ.	Educ. gr.	215 Encina
van de Griendt, Gerald H.	Los Gatos	LD 105+50	125 Encina
Griffin, Carroll Brent	Stanford Univ.	M.E. 85·113–4	449 Encina
[5]Griffin, Frank Joseph	Redwood City	Educ.141+107	400Broadway,RC-rc
[5]Grinstead, Marion Owen	Palo Alto	Pre-Clin. 42·134+13	Box276,R.1-p
Griswold, Gale Charles	Modesto	Chem. 113+204	110 Encina
Grondona, Charles Arata A.B., Stanford, 1923	San Francisco	Chem. 216+81	Delta Tau Delta
[1]Gronen, Edith Mary	Terra Bella	LD 49–6	Delta Gamma
Gross, Juanita Kathryn	Salinas	LD 44+39	240 Roble
[5]Gross, Richard Philip	San Francisco	Econ. 158+49	23 Encina
[2]Grossman, Sydney Samuel	Los Angeles	Econ. 39·89–6	3 Union
[1]Grothe, Marion Ware A.B., Stanford, 1923	Wayne, Neb.	Econ. 44·136+9	539 Encina
[4]Grubb, Florence C.	Oakland	LD sp.	Roble
[4]Grunbaum, Rosalee	San Francisco	Engl. 39+39	228 Roble
Guerra, Carlos E. P.	Mexico City,Mex.	LD 99+2	611 Bryant-p
[4]Guittard, Francis Gevier M.A., Chicago, 1902	Waco, Texas	Hist. gr.	120 Encina

[1]Gunby, Suzanne Victoria — Long Beach — LD 24·23+32 — Gamma Phi Beta
Gunther, Chester Oliver — Portland, Ore. — LD 109+18 — Beta Theta Pi
Gurley, Lee Sivley — Redwood City — M.E. 183+14 — Sigma Nu
A.B., Stanford, 1923
[12]Gutsch, Irma Siglinde — Alameda — Econ.113·73+10 — AlphaOmicronPi
A.B., Stanford, 1923
Haberkern, William M. — Richmond,Ind. — Pol. S. 87·93+35 — 612 Waverley-p
A.B., Stanford, 1923
[5]Hablutzel, Charles Edward — San Jose — LD 55+54 — 105 S. 11th, SJ-sj
[12]Hackett, Durlin Bates — Palo Alto — Econ. 50·147+66 — 105 Byron-p
A.B., Stanford, 1923
Hackett, Russell Graham — Spokane, Wn. — C.E.15·144+14 — DeltaKappaEps.
Hadley, Edwin Wilson — Palo Alto — Law gr. — 707 Bryant-p
A.B., Stanford, 1920
Hadley, George Charles — San Francisco — LD 101+16 — Alpha Tau Omega
Hahn, Young D. — Delano — Med. gr. — Chinese Club
A.B., Stanford, 1923
Halbert, Elizabeth A. — Long Beach — Psych. 48·111+25 — 171 Roble
Hale, Marshall, Jr. — San Francisco — Law 135+14 — Sigma Nu
Hales, Walter H. — Tacoma, Wn. — M.E. 46·137+141 — 421 Encina
A.B., Stanford, 1923
Haley, Bernard Francis — Hollywood — Econ. gr. — 45 Sequoia
A.B., Stanford, 1922
[13]Haley, Cecil Irving — San Jose — LD 105–4 — Theta Delta Chi
Haley, Kenneth Wendell — Bakersfield — LD 45+28 — 119 Encina
[234]Hall, Elizabeth Pierson — Los Altos — LD 61+15 — Sigma Kappa
Hall, Ernest Mosiah — San Francisco — Med. gr. — 2620 Sac'to, SF-sf
A.B., Brigham Young, 1905; M.S., Washington State College, 1916
Hall, Giles Stark, Jr. — Los Angeles — LD 62–17 — Alpha Delta Phi
[1]Hall, Gordon Harmon — Palmdale — LD 10–7 — 228 Katherine-p
[5]Hall, John — Los Angeles — LD 90+37 — 45 Encina
[4]Hall, Lucy Alice — San Mateo — Span. gr. — 202 Ellsworth, SM-sm
A.B., Stanford, 1917; A.M., 1918
[4]Hall, Marguerite F. — Toledo, Ohio — Educ. gr. — 312 Roble
A.B., Oberlin, 1914
Hall, Mildred Jessica — Fresno — Chem. 181+209 — 319 Roble
A.B., Stanford, 1923
Hall, Mildred S. — Bishop — LD 45·45+48 — 367 Roble
Hall, Victor Ernest — Palo Alto — Med. gr. — 2215 Buchanan, SF-sf
A.B., Stanford, 1922
[234]Hall, William Louis — Palo Alto — LD 30–20 — Chi Psi
[4]Halliday, Mary Edith — Alameda — LD sp. — 254 Roble
Halverson, C. Worthington — Oakley, Ida. — LD 49·47+30 — 236 Encina
[5]Hamill, Jas. M. — Oklahoma City, Okla. — Geol. 135·40+1 — 6 Union

Hamilton, Charles Ernest A.B., Stanford, 1923	Pasadena	M.E. 182+123	Beta Theta Pi
Hamilton, Kenneth Howard	Westley	LD 112+20	305 Encina
[12]Hamilton, Ray Leroy A.B., Stanford, 1922	Delano	Chem. gr.	219 Encina
[5]Hamlin, Harris Howard A.B., Stanford, 1922	Stanford Univ.	Chem. gr.	Sigma Alpha Epsilon
Hammer, Otto	Los Angeles	LD 65+11	Kappa Alpha
[12]Hammers, Herbert G. A.B., California, 1920	Turlock	Hist. gr.	718 Bryant-p
Hammond, Elmer Halbert	Palo Alto	LD sp. 22·97+102	847 Bryant-p
Hammond, Wilbert John	San Diego	LD 74·41+13	Theta Delta Chi
[1]Hancock, Donald Welborn	Riverside	Econ. 70·105+17	Delta Tau Delta
[34]Hancock, Morris W. A.B., Carleton, 1915	Mankato, Minn.	Educ. gr.	344 Kipling-p
[12]Hancock, Velda	San Jose	Educ. 110–30	532 S. 9th, SJ
[1]Hand, Alice Richards A.B., Stanford, 1905	Palo Alto	Engl. gr.	563 Lowell-p
[13]Hanrahan, Marshall S.	Palo Alto	LD 49–30	Zeta Psi
Hansell, Elvan Amos	Eureka	LD 90+74	119 Encina
[5]Hanson, Frederic Dooley	Los Angeles	Min. 22·132+186	230 Encina
Hao, Yao-Tung A.B., Stanford, 1921	Sianfu, China	Educ. gr.	Chinese Club
[12]Harada, Tye LL.B., Doshida University, 1919	Honolulu, T.H.	Econ. gr.	Japanese Club
[4]Harbeson, John Wesley A.B., Kansas, 1911	Pasadena	Educ. gr.	660 Waverley-p
Harcourt, Irl Roy	Fresno	M.E. 143+90	422 Encina
Harcourt, Wm. Ernest	Millers, Nev.	Law 135+38	27 Sequoia
[234]Hard, Burton Stedman	Ripon	Law 90+9	Alpha Tau Omega
Hard, Jean Willis, Jr.	Ripon	LD 41–4	Alpha Tau Omega
Harding, Frederick W.	SilverCity,N.M.	LD 46–6	38 Sequoia
[34]Harding, Victor Hunt	Palo Alto	LD ‡ 15+22	350 Pope-p
Hardwicke, Kenneth C.	Fresno	Law 116+28	AlphaKappaLambda
[3]Hardy, Edward Everett	Seattle, Wn.	LD 15–9	Laurel Court, MP-mp
Hardy, Jack W.	Los Angeles	LD 44+17	Delta Chi
Hardy, Millison Cutler	San Diego	LD 46+56	321 Roble
Harger, Donald K.	Los Angeles	LD 110+130	503 Encina
[3]Hargreaves, Lotus Odeal	San Jose	LD 14+14	475 Morse, SJ-sj
Harker, James Broadbent	Los Angeles	Chem. 9·130+14	62 Sequoia
[4]Harlan, Leslie Luce	Los Angeles	Educ ‡	161 Roble
[4]Harland, Tom Osborne	Coronado	LD ‡	324 Union
[12]Harlow, Charles Vendale	Long Beach	LD 67–21	111 Encina

Harman, George Samuel	San Francisco	LD 104+8	410 Encina
Harper, Edward Baldwin A.B., Stanford, 1923	Los Altos	Law 32·155+26	231 Encina
[4]Harper, Josias Meryl	Greeley, Colo.	S. Biol. ‡	616 Forest
[5]Harrell, Lorimer Benton	Merced	Law 86+13	Sigma Alpha Epsilon
[4]Harriman, Grace Martha A.B., Radcliffe, 1912	Stanford Univ.	Educ. gr.	304 Roble
[5]Harris, David W. C.	Stanford Univ.	Pre-Med. 21·113+184	234 Union
Harris, Edwin Loring A.B., Stanford, 1923	San Francisco	Chem. 22·141+63	Delta Tau Delta
Harris, Helen Estelle A.B., Stanford, 1923	Los Angeles	Ed.G.A.gr.	KappaKappaGamma
Harris, Leo A.	Santa Cruz	LD 47+43	434 Encina
[4]Harris, Matilda B.S., Columbia, 1922	Bowling Green, O.	Econ. gr.	338 Roble
Harris, Richard Charles A.B., Stanford, 1922	Los Angeles	Geol. gr.	Zeta Psi
[3]Harrison, Florence Kent	Halcyon	LD 28+5	Reservoir Drive
[3]Harrison, W. Clarence	San Francisco	LD 15–2	
Harroun, Margaret	Malaga, N.M.	LD 87+75	Delta Gamma
[12]Hart, Edward Hutson A.M., Wofford College, 1918	Holly Hill, S.C.	Sch.Ed.gr.	W.WarrenSc.,MP-mp
Harter, Doris Irene	Woodland	LD 103+88	382 Roble
[4]Hartley, Grace B.A., Oregon, 1913	Palo Alto	Educ. gr.	321 Kipling-p
[5]Hartley, James John	Palo Alto	Geol. 16·166+19	644 Guinda-p
[4]Hartman, Amasa S. A.B., Wabash, 1917	Anderson, Ind.	Educ. gr.	Newell Rd.-p
Hartman, Hans A.B., Stanford, 1921	San Francisco	Med. gr.	2201 Sac'to, SF-sf
[1]Hartman, Richard Homer A.B., Stanford, 1922	Palo Alto	M.E. gr	313 Everett-p
[1]Hartranft, S. Glenn	Fullerton	LD 96–20	Kappa Sigma
[12]Hartwell, Robert Clark	Los Angeles	LD 28+19	Kappa Alpha
Hartzell, Lucie Eloise	Los Angeles	LD 104+22	Delta Gamma
Harvey, Rowland Hill A.B., Southern California, 1920	Menlo Heights	Hist. gr.	Menlo Heights
Harville, Richard Towner	Berkeley	LD 37–8	Beta Theta Pi
[234]Harward, Elbert Jay	Boise, Ida.	LD 43·31+31	244 Encina
[4]Hassett, May A.	Woodland	LD sp.	117 Roble
Haseltine, Theodore Raymond	Crockett	LD 99+136	433 Encina
[1]Hashimoto, Tadaichi	Yamaguchi, Japan	Chem. sp. 106–3	1012 High-p
Hastings, Alice Narcissa A.B., Stanford, 1920	Pasadena	Sch. Ed. gr.	380 Roble

Hastings, Robert	Palo Alto	LD 83–5	Base Hosp.-p
Hastings, Ross Reed	Sausalito	LD 54+70	31 Sequoia
[4]Haugen, Mabel Eleanor	Manfred, N.D.	LD ‡	282 Roble
[4]Haulot, Emily L.	Phoenix, Ariz.	LD ‡	170 Roble
[4]Haulot, Leona Mary A.B., Arizona, 1923	Phoenix, Ariz.	Educ. gr.	172 Roble
Haviside, Russell Harry	San Francisco	LD 48–6	Kappa Sigma
[12]Hawes, John Raymond A.B., Stanford, 1923	San Jose	Chem.4·182+187	125Frem't,SJ-sj
[12]Hawkins, Robert Ziemer	Reno, Nev.	LD 77+57	10 Sequoia
Hawkins, Sidney Wm.	San Francisco	LD 22·89+111	471 Addison
Hawkins, Stanley Lloyd	Mountain View	LD 90+18	Mt. View-mv
[12]Hawkins, William G.	Stephensport,Ky.	LD sp. 8–12	325 Encina
Hawley, Edith A.M., Columbia, 1920	Elk City, Kans.	Food Res. gr.	University Park
Hawley, James LeRoy	Palo Alto	M.E. 173+154	440 Webster-p
Hay, Gerald Myer	Bakersfield	LD 44–6	Delta Chi
Hayashi, Francis M.	San Francisco	LD 81+80	Japanese Club
[23]Hayden, Clifford Russell	Oakland	LD ‡ 24–9	512 Encina
[4]Hayden, Sara Davis	Tempe, Ariz.	Fr. 95·0+0	166 Roble
Haydon, Osborne	E. Las Vegas, N.M.	LD 33·49+5	114 Encina
[5]Hayes, Gordon Bruce	Saratoga	Chem. 12·148+66	AlphaSigmaPhi
[5]Hayes, Jay Orlo, Jr.	San Jose	Econ. 166–4	Phi Delta Theta
Hayfer, Paul	San Francisco	Pre-Med. ‡ 66–11	234 Union
[5]Hayne, William A. B.	San Francisco	Mil. Sci. 172+135	510 Encina
Hays, Frank Bellchambers	Palo Alto	M.E. 103+13	350 Encina
Hays, George P.	Palo Alto	Econ. 91+22	Chi Psi
Hays, Harford Holmes	Palo Alto	Econ. 132+35	825 University-p
[4]Hays, Paul Raymond	San Mateo	LD 50·31+47	723 Hamilton-p
[4]Hays, Robert Paden	Berkeley	Zool. 79+9	Pacific Grove-pg
Hays, Vida	Palo Alto	LD 41–8	825 University-p
Hays, Walter Grant	Palo Alto	Law 101+117	635 Cowper-p
[23]Hazeltine, John Criley A.B., Stanford, 1923	Prescott, Ariz.	Phil. gr.	Zeta Psi
[5]Hazeltine, Karl Snyder A.B., California, 1914	San Jose	Educ. gr.	660 S. 11th, SJ-sj
Hazeltine, M. Bonsall	Prescott, Ariz.	LD 62+10	Zeta Psi
[5]Healey, James C.	San Francisco	Law sp. 67+11	626 Gilman-p
[5]Heater, W. Earl	Ritzville, Wn.	Geol. 167+33	Phi Kappa Psi
Heaton, Norris Paul A.B., Stanford, 1923	Paso Robles	Econ. 91·89+33	139 Encina
Heckendorf, Percy Charles A.B., Stanford, 1923	San Jose	Law 180+6	44 Encina

[2]Hedges, Amelia Louise	Palo Alto	Pol. S. gr.	558 Lincoln-p
A.B., Stanford, 1921			
[4]Hefner, Augusta Josephine	Sioux City, Ia.	LD sp.	270 Roble
Heidig, Alfred Gerhard	Palo Alto	LD 36·56+115	275 Hamilton-p
[23]Heizer, Robert Edw.	Las Animas, Colo.	LD 18–8	469 Homer-p
[12]Helm, Morton Baldwin	Los Angeles	LD 28–9	106 Encina
Helser, John Henry	San Francisco	LD 44+7	Sigma Nu
[14]Henderson, Alex D., Jr.	Lovelock, Nev.	Geol. 51–17	Sigma Alpha Epsilon
Henderson, James Gordon	Los Angeles	Med. gr.	2436 Clay, SF-sf
A.B., Stanford, 1921			
Henderson, Paul Fleming	Spokane, Wn.	C.E. 180+103	526 Encina
A.B., Stanford, 1923			
[12]Henderson, Paul L.	Greeley, Colo.	Geol. 18·112+34	Theta Delta Chi
[5]Henderson, Virginia June	Los Angeles	LD 85+17	307 Roble
[12]Henderson, Ynez Marie	Campbell	Sch. Ed. gr.	Sigma Kappa
A.B., Stanford, 1922			
[4]Hendrick, Roy Wesley	Palo Alto	Educ. 131·62+50	138 Encina
[5]Hendricks, John Allan	Logan, Utah	Law gr.	628 Gilman-p
B.S., Utah Agricultural College, 1920			
Henry, Archie Ward	Pullman, Wn.	Med. gr.	127 Lowell-p
B.S., Washington State College, 1910; A.B., Stanford, 1923			
Henry, Warner White	Los Angeles	LD 56+35	Delta Kappa Epsilon
Henry, William Howard	Los Angeles	Geol. 43·21–15	Zeta Psi
[4]Hepburn, Samuel Benedict	Santa Maria	Hist. gr.	Los Altos-la
A.M., Indiana, 1916			
Herdman, Dorothy Isabel	Palo Alto	LD 25–24	935 Cowper-p
[4]Herdman, Robert Eugene	Los Angeles	LD 37–20	41 Encina
[1]Herkman, Paul V.	San Francisco	Fr. gr.	1640 Mason, SF-sf
A.B., Stanford, 1922			
[4]Herlihy, Lester Barry	Tucson, Ariz.	Hist. ‡	57 Encina
Herndon, Leroy Travers	Gonzales	LD 46+29	126 Encina
[5]Herrington, Dorothy F.	Ogden, Utah	Fr. 30·138+132	Alpha Omicron Pi
Herron, Jessie Emerson	Los Angeles	Engl. 128·52+79	329 Roble
[4]Hershey, Granville Kline	Los Angeles	Bot ‡	Mayfield-m
[4]Hert, Julia Ernestine	Colton	Econ. gr.	Madroño
A.B., California, 1923			
Hertlein, Leo George	Palo Alto	Geol. gr.	437 Kipling-p
B.A., Oregon, 1922			
Hertsche, Joel C., Jr.	Portland, Ore.	LD 47+18	128 Encina
Herz, Ludwig Ernest	Mayfield	LD 46+26	209 Stanford, M-m
[1]Herzog, Maxine L.	San Francisco	LD 46+11	270 Roble
Hess, Chester Newton	Ogden, Utah	Engl. 39·132+48	34 Sequoia
Hess, Kenneth William	Ogden, Utah	LD 45+22	Alpha Tau Omega

Hesselmeyer, Clarence T.	San Francisco	M.E. 164+274	60 Encina
[4]Hester, Berthena M. A.B., Michigan, 1903	Mountain View	Pol. S. gr.	542 Church, MV-mv
[5]Hesthal, Cedric Edward	San Francisco	LD 113+38	39 Sequoia
[5]Heupgen, Claude	Mons, Belgium	Phil. 45·117+56	548 Encina
[5]Hevey, Edward, Jr. A.B., Stanford, 1923	Brentwood	Educ. gr.	226 Encina
Hewitt, Mary Elizabeth A.B., Stanford, 1921	San Jose	Med. gr.	2871 Clay, SF-sf
[23]Hey, Clifford Lester	Hayward	LD 92–8	Kappa Sigma
[5]Hicklin, Maurice B.A., Missouri, 1910	Seattle, Wn.	Engl. gr.	730 Waverley-p
[2]Hicks, Aileen Leighton	Los Angeles	LD 17+10	382 Roble
Hicks, Blanche Davis	Los Angeles	LD 80+98	Sigma Kappa
[12]Hicks, James Herndon A.B., Stanford, 1923	San Diego	Econ. 183+62	Chi Psi
[4]Hiden, Nannie M. B.S., Columbia, 1916, M.A., 1918	Newport News, Va.	Educ. gr.	103 Roble
[12]Higby, Myron Claude A.B., Stanford, 1923	Los Angeles	Econ. 180+73	Alpha Sigma Phi
[12]Higgins, Clyde Randolph	Redwood City	M.E. 160+74	R.F.D.Box34,RC-rc
[4]Highfill, Floyd J. B.S., Southeast Missouri State Teachers, 1921	Springfield, Mo.	Educ. gr.	P.O., Campus
Hilgeson, James	Mayfield	Pre-Clin.111·76+29	1022P.Alto-p
[1]Hill, Andrew Putnam, Jr. A.B., Stanford, 1922	Palo Alto	Educ. gr.	451 Addison-p
[4]Hill, Archibald A. B.A., Pomona, 1923	Stanford Univ.	Engl. gr.	6 Lasuen
Hill, Beatrice E.	Albuquerque, N.M.	LD 15·42+42	377 Roble
[4]Hill, Edith Abigail A.B., Stanford, 1903	Redlands	Fr. gr.	149 Roble
[5]Hill, Mary Anderson A.B., Vassar, 1889; A.M., Stanford, 1922	San Diego	Engl. gr.	Gamma Phi Beta
Hill, Ward Ames	San Francisco	LD 47+66	324 Encina
[5]Hillis, Donuil Marshall A.B., Stanford, 1921	Los Angeles	Geol. gr.	Laurel Court, MP-mp
[23]Hillis, Katholeen M.	Los Angeles	LD 45·44+45	146 Roble
Hilton, Miriam	Portland, Ore.	Engl. 107+110	Kappa Alpha Theta
Hinckley, Barton Armin	Hollywood	Econ. 138+55	225 Encina
Hinckley, Richard Hoagland	Hollywood	Econ. 138+62	DeltaKappaEpsilon
[12]Hindes, Brooks Edward	Menlo Park	LD 67–15	Menlo Park-mp
Hines, Don Carlos	San Jose	LD 61+122	451 Encina
Hinton, William Frank A.B., Stanford, 1923	Hansen, Ida.	Geol. 182+27	5 Sequoia

[3]Hirata, Henry Hikoichi A.B., Stanford, 1923	Japan	Chem. 180+82	735 Ramona-p
Hirschfeld, Ellis Irving A.B., Stanford, 1921, J.D., 1923	Palo Alto	Law gr.	432 Hawthorne-p
[5]Hirschman, Reginald Marion	San Mateo	Hist. 124+18	229 Encina
[3]Hitchcock, Donald M.	Paso Robles	M.E. 36·66–28	362 Encina
[5]Hitchcock, Lewis G.	Stanford Univ.	LD 81+16	59 Encina
Hjelm, Harold LeRoy	Turlock	LD 83+98	721 Waverley-p
Ho, Hao-Jo A.B., Stanford, 1923	Siangtau, China	Econ. 135·45+58	Chinese Club
Hobro, William L.	San Francisco	LD 101+33	416 Encina
Hobson, Charles Wilfred	Whittier	Law 43·95+125	25 Sequoia
[12]Hobson, Vivian Irene A.B., Stanford, 1919	Pasadena	Fr. gr.	Delta Delta Delta
[5]Hodges, Earl Barton A.B., Iowa State Teachers, 1911; A.M., Stanford, 1923	Colma	Educ. gr.	243 Waverley-p
[1]Hodgkinson, Melvin Grieg	Vallejo	LD 24–9	564 University-p
Hodgson, Daphne	Yonkers, N. Y.	LD 23+10	336 Roble
Hodgson, Foresta	Yonkers, N. Y.	LD 84+30	Pi Beta Phi
Hoefer, Andrew Jack	Palo Alto	LD 55·26+7	183 Everett
[1]Hoey, George William A.B., St. Marys College, 1908	Menlo Park	Cl. Lit. gr.	Menlo Park-mp
[5]Hofflund, John Leslie	El Cajon	Law 67·63+56	181 Tasso
[1]Hoffman, Rolland William	Oakland	LD 51–17	428 Encina
[134]Hoffmann, Floyd Edward	San Diego	LD 65–1	Theta Chi
Hoffmann, Paul Edward	Oakland	LD 109+85	309 Encina
[2]Hoffmann, Pauline May	Los Angeles	LD 22·30+12	366 Roble
[4]Hoisholt, Estella A.B., Stanford, 1922	San Jose	Ed. G.A. gr.	201 Roble
[1]Holaday, Perry Ward A.B., Stanford, 1923	San Jose	Geol. 67·129+9	228 S. 15th, SJ-sj
[5]Holbrook, Bernard D.	Ann Arbor, Mich.	Phys. 45·112+164	AlphaDeltaPhi
[4]Holbrook, C. Ray A.M., Washington, 1922	Seattle, Wn.	Educ. gr.	840 Kipling-p
[5]Holbrook, Joanna O.	Ann Arbor, Mich.	Fr. 46·45+35	158 Roble
[1]Holland, Kenneth Deleval	Los Angeles	LD 27–16	60 Sequoia
[1]Hollembeak, Hugh Ryan	Long Beach	LD 47+42	248 Encina
[4]Holliday, Guy	Kansas City, Mo.	LD ‡	127 Encina
Hollingsworth, Lytle Webster A.B., Stanford, 1923	San Jose	M.E. 7·184+159	Theta Chi
[2]Holliway, Harrison Emery	San Francisco	LD 43–23	249 Encina
[1]Holmes, William Willard	Hollister	Geol. ‡ 72–24	505 Encina
[4]Holsclaw, Dugald S.	Grangeville, Ida.	LD ‡	326 Union

Holsen, James Noble A.M., Indiana, 1920	Sumner, Ill.	Food Res. gr.	405 Kipling-p
[1]Hood, Donaldson G.	Portland, Ore.	Econ. 47·45+18	Kappa Sigma
[4]Hood, Dwight Lincoln	Reno, Nev.	Pre-Med. ‡	Sigma Alpha Eps.
Hood, Margaret Henrietta	Long Beach	Engl. 142+243	102 Roble
Hood, Thomas Howard	Oakland	LD 35+13	Delta Chi
Hooker, Philip Burton	Hollywood	LD 43+13	Kappa Alpha
[4]Hooker, Robert Gay, Jr. A.B., Harvard, 1923	San Mateo	Law gr.	
[12]Hooper, Alfred S.	San Francisco	LD 86+74	324 Encina
[23]Hoover, Herbert, Jr.	Washington,D.C.	LD 84+21	60 Sequoia
Hoover, Malvern Edward	Santa Monica	LD 50+44	30 Sequoia
Hopkins, Theodore Amos	Santa Cruz	LD 45+20	434 Encina
Hopper, Max Foster	Palo Alto	LD 106+107	305 Churchill-p
Hopper, Veta A.B., Stanford, 1923	Rocky Ford, Colo.	Fr. 46·134+131	Chi Omega
[1]Hornaday, Francis Paul A.B., Nevada, 1920	Santa Cruz	Law gr.	260 Homer
[1]Hornbeak, Farley B.	Hollywood	LD	355 Encina
[5]Hornblower, Angus G.	Palo Alto	LD 48+10	102 Middlefield-p
Horner, John Mears A.B., Stanford, 1923	Honolulu, T.H.	Chem. 105·135+45	344 Encina
Hornlein, Hugo Garvin	San Francisco	LD 84+23	351 Encina
[3]Horstmeyer, Arend L.	San Francisco	LD 45–34	122 Encina
Hosepian, Haig Mitchell A.B., Stanford, 1922	Sanger	Med. gr.	2201 Calif., SF-sf
Hosepian, Vaughn M. A.B., Stanford, 1923	Sanger	Phyl.-Med. 193+94	531 Encina
[12]Hosmer, Forest Eugene	Modesto	LD 36–22	244 Encina
[4]Hostetler, Ivan Paul B.S., Kansas State Normal, 1919	Miami, Ariz.	Educ. gr.	532 Forest-p
[1]Houck, George Mayhew	Los Angeles	LD 40–23	Alpha Tau Omega
[23]Houser, John	Woodside	LD ‡ 22–13	Alpha Delta Phi
Hovey, Charles Garoutte	Palo Alto	LD 36–23	1110 Waverley-p
How, Hong Hock	Canton, China	LD 48+20	1129 Cowper-p
[124]Howard, E. Athelstone	Los Angeles	LD sp. 10·80–15	Zeta Psi
Howard, Evelyn	Sacramento	LD 109+135	104 Roble
Howard, Lloyd Gibbs A.B., Stanford, 1921, J.D., 1923	San Francisco	Law gr.	Kappa Alpha
[5]Howarth, Kingsley K.	Fitchburg, Mass.	Econ. 48·100+41	Theta Delta Chi
Howe, Ralph Denny	Palo Alto	LD 107+61	955 Channing-p
[4]Howells, Thomas Henry A.B., Utah, 1915	Keokuk, Ia.	Educ. gr.	5 Alvarado

Hoxie, Robert Osborn	Los Angeles	LD ‡ 41+21	120 Encina
[4]Hoyt, C. Russell	Shedd, Ore.	LD ‡	41 Encina
[12]Hoyt, Jonathan	Stanford Univ.	Pre-Med. 102·30–10	Sequoia
Hubbard, Harley Corwin	Los Angeles	LD 91+24	Delta Upsilon
Hubbard, Mary Elizabeth	Hollywood	Engl. ‡ 71–4	Pi Beta Phi
Hubner, Albert Arthur	Wheatland	LD 77–24	125 Encina
[12]Huebner, Mary	Holtville	Econ. 97·31+33	184 Roble
[4]Hughes, Annie A.	San Francisco	LD sp. 6+7	334 Roble
[5]Hughes, Donald Dudley B.A., Oklahoma, 1921	Perry, Okla.	Min. gr.	6 Union
Hughes, Frederick Marshall	Palo Alto	Econ. 165+98	Delta Chi
Hughes, Robert Elwyn	San Francisco	Med. gr.	1859 Green, SF-sf
[4]Huish, Willard S.	Tucson, Ariz.	LD sp.	446 Hamilton-p
[4]Hulet, David Willard	Tucson, Ariz.	LD sp.	446 Hamilton-p
Hull, Mary Ellen	San Mateo	Econ. 122+64	303 Roble
[4]Hull, Orlo Barton	Porterville	Educ. ‡	205 Union
Hull, Perry Miller A.B., Stanford, 1923	Madison, Wis.	Econ. 78·98+24	304 Union
[2]Hummel, Redolpho Braun A.B., Stanford, 1904	Los Gatos	Engl. gr.	Los Gatos-lg
Humphrey, Harold Eugene	Reno, Nev.	LD 38+24	Sigma Alpha Epsilon
[1]Humphrey, John C.	San Francisco	LD	Kingscote
[5]Huneke, Albert Hussey	Los Angeles	Law 9·91+20	Alpha Delta Phi
[1]Hunkins, Byron Churchill	Fresno	LD ‡ 0–12	Laurel Court, MP
[1]Hunnicutt, Helen Mar	Austin, Texas	Hist. 93·15+8	264 Roble
Hunnicutt, Leland G. A.B., California, 1921	Whittier	Med. gr.	2215 Buchanan, SF-sf
[4]Hunt, Bertha Aylsworth A.B., California, 1920	Palo Alto	Ed. G.A. gr.	735 Bryant-p
Hunt, Faye Josephine A.B., Stanford, 1922	Twin Falls, Ida.	Engl. gr.	234 Roble
[5]Hunt, Leonard Wilbur	Palo Alto	Geol. sp. 53–5	801 Waverley-p
[5]Hunt, Richard A.B., Harvard, 1910	Palo Alto	Zool. gr.	735 Bryant-p
Hunt, Robert Walter	Santa Barbara	LD 46+17	Phi Gamma Delta
Huntington, Evelyn Hope	Palo Alto	LD 90+27	516 Kingsley-p
Huntington, Herbert A. A.B., Stanford, 1923	Long Beach	Med. gr.	2018 Webster, SF-sf
Hurd, Joe Bryan A.B., Stanford, 1923	Medford, Ore.	Econ. 41·139+37	Alpha Sigma Phi
Hurlbut, Dorothy A.B., Stanford, 1923	Los Angeles	Span. 181+22	KappaKappaGamma
[4]Hurley, Charles Clifton A.B., Stanford, 1920, A.M., 1921	Albion	Law gr.	128 Encina

[4]Hurley, Jere Elwood A.B., Stanford, 1920	Albion	Law gr.	128 Encina
[23]Hurley, Peter Richard	Albion	LD 80+25	301 Encina
Hurt, Everett Price A.B., Arizona, 1921; Engineer, Stanford, 1923	Stanford Univ.	Min. gr.	536 Encina
[5]Husband, Richard David	Modesto	LD 59·50+65	251 Encina
Hutchens, Francis Case A.B., Stanford, 1923	Los Angeles	Cl. Lit. 188+340	141 Encina
[34]Hutchinson, Lester B.	Reading, Mass.	LD sp. 13+5	735 Cowper-p
[1]Hyatt, Phyllis	Sacramento	Ger. 36·94–7	Kappa Alpha Theta
[5]Hyde, Carol Elizabeth	Palo Alto	Engl. 134+211	1070ForestCourt-p
Hyde, Susan McKee	Santa Barbara	LD 44+62	320 Roble
[1]Hyde, William Avery	Los Altos	Chem. 4·147+238	218 Encina
[34]Hyland, Frank William	San Francisco	LD sp. 13+6	Delta Upsilon
Ichikawa, Yoshio	Hiroshima, Japan	LD 14·89+97	Japanese Club
Igo, Albert J. A.B., Stanford, 1923	Long Beach	Chem. 121·66+39	233 Union
Imokawa, John Kiichi A.B., Stanford, 1923	Fukuoka, Japan	M.E. 180+184	2 Alvarado
[2]Ingebritson, Reuben C.	San Francisco	C.E.63·115+96	1045Cabrillo,SF-sf
Ingram, Fred Raymond	Palo Alto	LD 96+79	825 Cowper-p
[4]Inlow, Harvey Edgar A.B., Pacific University, 1915	Pendleton, Ore.	Educ. gr.	211 Middlefield
[5]Innes, Wells William	Santa Ana	Econ. 45·86+55	Delta Tau Delta
[4]Irion, Theophil W. H. A.M., Columbia, 1916	Ypsilanti, Mich.	Psych. gr.	616 Forest-p
Irving, Donald Riek	Hollywood	LD 49+52	302 Encina
[34]Irving, Laurence A.B., Bowdoin, 1916; A.M., Harvard, 1917	Mayfield	Phyl. gr.	725 Stanford, M-m
Irwin, Jacob Carney	Twin Falls, Idaho	LD 12·69–4	31 Encina
Irwin, John B., Jr.	Minneapolis, Minn.	LD 15·78+64	Delta Upsilon
Irwin, Kathryn A.B., Stanford, 1923	Lindsay	Econ. 204+26	Chi Omega
[5]Irwin, Thomas George	TwinFalls,Idaho	Econ.-Jn. 171+108	4 Union
Irwin, William Hyde	Brookdale	Ent. 118+56	36 Sequoia
[12]Ise, Hulda Louise A.M., Kansas, 1912	Lawrence, Kans.	Engl. gr.	353 Addison-p
[5]Isensee, Frank Paul	Catonsville, Md.	LD 75+36	564 University
[1]Ishiguro, Naoichi	Livingston	LD 3–10	728 Ramona-p
[1]Ishii, Frank Toru A.B., Stanford, 1922	Long Beach	Econ. gr.	225 Union
[4]Jackson, Ben	College Station, Texas	LD sp.	Palo Alto-p
Jackson, Donald Ira	Reward	LD 46+4	49 Encina

Jackson, Paul R.	Anderson	LD 46+67	16 Encina
[1]Jacobsen, Theodor S. A.B., Stanford, 1923	Santa Barbara	App. Math. 185+224	44 Sequoia
[5]Jaffe, Louis Leventhal	San Francisco	LD 48+79	305 Encina
[4]James, David Henry	Denair	LD ‡	122 Encina
[1]James, David John	Riverside	LD ‡ 43–24	Delta Tau Delta
[4]James, Edith Mary A.B., Stanford, 1920	Riverside	Span. gr.	Kingscote
James, Norris E.	San Francisco	Pol.S.-Jn. 122+24	AlphaKap.Lam.
James, Stewart Daniel	Compton	Econ. 111·41+8	Phi Gamma Delta
James, William Robert	Los Angeles	Law 80·51+5	Zeta Psi
[134]James, Wright Elwood	Compton	Geol. 52·93+58	Phi Gamma Delta
Jameson, Ruth Avis	Corona	Econ. 8·126+26	214 Roble
[5]Jamison, Emma VanNoy	Santa Clara	Econ. 67·91+116	305 Roble
[5]Jamison, Mary Muir A.B., Stanford, 1923	Santa Monica	Span. gr.	Gamma Phi Beta
Janssen, Clayton Robson	San Francisco	LD 71–26	Alpha Delta Phi
[4]Jarvis, Lulu Gail A.B., California, 1922	Berkeley	Engl. gr.	176 Roble
[4]Jarvis, Russell Boyden A.B., Stanford, 1921	Greeley, Colo.	Law	6 Lasuen
[5]Jayne, Burton Hilton	Palo Alto	LD 10·49+88	618 Fulton-p
[12]Jenkins, Kendall Reed	Glendale	C.E. 158+137	381 Lincoln
Jenkins Richard Leos	Los Angeles	LD 10·116+138	112 Encina
[1]Jennings, Thomas Murdoch A.B., Stanford, 1923	Menlo Park	Econ. 21·163+22	Kappa Alpha
[5]Jergins, Allen Andrew	Los Angeles	LD 97+42	Delta Upsilon
Jetter, George Dominic	San Jose	LD 41·38–2	353 N. 3d, SJ-sj
[1]Jewell, Marion Richard	Palo Alto	LD 38+7	327 Waverley-p
Jimerson, Jack Richard A.B., Stanford, 1923	Payette, Idaho	Pre-Clin.135·47+38	1020Ramona-p
[234]Johannsen, Homer V.	Chicago, Ill.	LD sp. 33+30	27 Sequoia
[5]Johansen, Donald Alexander	Arcata	LD 74+31	49 Sequoia
John, Harold Thomas A.B., Stanford, 1923	Florence, Colo.	M.E. 180+25	333 Encina
[4]Johnson, Carolyn Lecelia	Sioux City,Ia.	LD sp.	258 Roble
[234]Johnson, Charles Christian	Menlo Park	Pre-Med.90·33+32	Bx18,MP-mp
[4]Johnson, Claude Melvin A.B., Stanford, 1923	San Jose	Educ. gr.	230 N. 9th, SJ-sj
Johnson, Elmer William	Everett, Wn.	LD 48·40+22	225 Encina
[4]Johnson, Julie R. A.B., Stanford, 1913	Fresno	Educ. gr.	351 Roble
[4]Johnson, Lottiellen	Sacramento	Ed. G.A. ‡	116 Roble

Johnson, Melvin Harold	San Jose	LD 46+41	411 N. 2nd, SJ-sj
Johnson, Oliver Wolcott A.B., Stanford, 1921	Palo Alto	Chem. gr.	430 Tennyson-p
[23]Johnson, Radcliffe Conner	Phoenix, Ariz.	LD 24+4	Theta Delta Chi
Johnson, Richard Edwin A.B., Stanford, 1923	Satsop, Wn.	M.E. 182+232	333 Encina
Johnson, Richard Woodburn	Palo Alto	LD 65–8	363 Melville-p
[3]Johnson, Samuel Raymond	Cupertino	LD 16+12	Delta Tau Delta
[23]Johnson, Wanda Lee A.B., Stanford, 1923	Ontario	Hist. 9·176+224	255 Roble
Johnson, Willard L. A.B., Stanford, 1923	San Francisco	Econ. 186+16	303 Union
[1]Johnston, Charles Francis	Los Angeles	LD 41–26	Zeta Psi
[234]Johnston, Geraldine A.B., Minnesota, 1920	Minneapolis, Minn.	Fr. gr.	Alpha Phi
Johnston, William R.	San Francisco	LD 23–5	Alpha Delta Phi
Jones, Evelyn Mabel A.B., Stanford, 1923	Santa Clara	Econ. 180+106	207 Roble
Jones, Fred Norman	Victor, Colo.	LD 50+41	330 Encina
[5]Jones, Louis Ernest	Roseville	Zool. 137+42	57 Sequoia
Jones, Ralph Joseph	Calgary, Canada	LD 95+2	68 Sequoia
Jones, Robert L. B.A., Southern Methodist University, 1917; M.A., Texas, 1920	Palo Alto	Hist. gr.	641 Gilman-p
[23]Jongeneel, Frances Alberta	Berkeley	LD 23·31+18	223 Roble
Jopson, Frank Granvil	San Jose	Econ. 149+46	Alpha Sigma Phi
Jordan, Eric Knight	Stanford Univ.	Geol. 146+108	Xazmin House
[4]Jordan, John Stuart A.B., Denver, 1916	Grass Valley	Educ. gr.	25 Salvatierra
Joseph, Gertrude Jennie A.B., Stanford, 1922	Mountain View	Sch. Ed. gr.	220 Roble
[14]Joseph, Paul Mitchell	Los Angeles	Law 124+101	437 Encina
Judah, Nelson Van	Los Angeles	Econ. 6·160+43	Delta Upsilon
Judd, Grace	Glendale	LD 75+75	Delta Delta Delta
[5]Kahn, Edgar Myron	San Francisco	LD 67+1	521 Encina
[34]Kane, Bernard Evanue	Kane, Pa.	LD 75·10+3	Encina
Karr, Frank Randolph	Los Angeles	LD 45+15	448 Encina
Kartheiser, Marcella H. A.B., Washington State College, 1921, A.M., Stanford, 1923	Spirit Lake, Ida.	Fr. gr.	Madroño
Kasawa, Masunosuke A.M., Stanford, 1923	Japan	Zool. gr.	Japanese Club
Kaseberg, Helen H. A.B., Stanford, 1923	Portland, Ore.	Math. 135·45+56	269 Roble
Kauffman, Francis Michael	Chicago, Ill.	Econ. 10·129+27	80 Sequoia
[2]Kaufman, William Fred	Oakdale	LD ‡ 0–16	215 Encina

Kay, Raymond Myer — Los Angeles — LD 44+46 — 447 Encina
Kazan, James — Philadelphia, Pa. — C.E. 90·94+6 — 309 Union
A.B., Stanford, 1923
Keesling, Wana Myrle — Campbell — LD 92+56 — Alpha Omicron Pi
[4]Keezel, Dorothy G. — Walla Walla, Wn. — Engl. gr. — Madroño
B.A., Mt. Holyoke, 1911; A.M., Southern California, 1918
[4]Keezel, Enos Loggan — Walla Walla, Wn. — Educ. gr. — Madroño
A.B., Oregon, 1915, A.M., 1919
Keil, William Frederick — Bachelor — LD 46+16 — 108 Encina
[5]Keller, Walter Paul — Portland, Ore. — Law 172+48 — Sigma Alpha Epsilon
Kelley, Kenneth K. — Salt Lake City, U. — Chem. 38·146+228 — 418 Florence-p
A.B., Stanford, 1923
Kellogg, Dorothy W. — Geyserville — Engl. 121+97 — Kappa Alpha Theta
Kellogg, Leonard Frank — Santa Ana — Math. 90·50+44 — 1102 Ramona-p
[23]Kelly, Adelaide Frances — Palo Alto — LD 31+11 — 909 Cowper-p
[5]Kelly, Handel Whittaker — San Jose — Hist. 143+76 — 732 Emory, SJ-sj
[13]Kelly, James Bryden — Palo Alto — Ent. 146+10 — Kappa Sigma
[1]Kelly, James Thomas — Santa Ana — LD ‡ 46+6 — Theta Delta Chi
[4]Kelly, John Joseph — Pittsfield, Mass. — LD sp. — 229 Union
[1]Kelly, Joseph Francis — Needles — LD 0–14 — 406 Encina
[234]Kelly, Nora Madelene — Menlo Park — Cl.Lit.gr. — ConventSac.Ht.MP-mp
B.A., College of Sacred Heart, 1922
Kelso, George Cameron — Palo Alto — LD 90+26 — 151 Melville-p
[5]Kemnitzer, William J. — Mill Valley — LD 49·104+33 — 324 Union
[13]Kengla,BlancheMargaret — SanFrancisco — Chem. 126·54+15 — Alpha Phi
A.B., Stanford, 1923
[1]Kennedy, Forrest Harry — Blackfoot,Ida. — Econ. 8–11 — Phi Gamma Delta
Kennedy, Harry Fowler — Ontario — LD 99–2 — 40 Encina
[5]Kennedy, James Sheldon — Palo Alto — Educ. gr. — 112 Melville-p
A.B., Central Michigan Normal, 1922; A.M., Stanford, 1923
Kennedy, Laura Elizabeth — Palo Alto — Econ. 4·187+225 — 334 Lincoln-p
A.B., Stanford, 1923
[12]Kennedy, Lewis Harold — Long Beach — C.E. gr. — 344 Encina
A.B., Stanford, 1923
[13]Kennedy, Robert Bankert — San Jose — Econ.-Jn. 135+99 — 841 Willis,SJ-sj
Kennedy, Vernon Fowler — Ontario — Med. gr. — 2327 Sac'to, SF-sf
A.B., Stanford, 1922
Kenney, Elizabeth Jane — Palo Alto — Econ. gr. — Delta Delta Delta
A.B., Stanford, 1923
Kenney, William John — Washington,D.C. — LD 42+3 — Sigma Alpha Epsilon
[234]Kent, Arthur Harold — Los Angeles — Law gr. — 616 Forest-p
A.B., Southern California, 1917
Kerr, Anita — Los Angeles — Hist. 65·115+20 — Delta Gamma
A.B., Stanford, 1923

Kerr, James William	Santa Ana	LD 43–4	Delta Tau Delta
Kerr, Paul Francis	Stanford Univ.	Geol. gr.	322 Encina
B.S., Occidental, 1919; Ph.D., Stanford, 1923			
Kettenburg, Robert John	Pt. Loma	M.E. 140+7	223 Encina
A.B., Stanford, 1923			
[5]Kibby, Ira Wesley	Palo Alto	Educ. gr.	1826 Waverley-p
B.A., Colorado State Teachers College, 1918; A.M., Stanford, 1923			
Kiggens, Clarence Edward	Lindsay	Econ. 176+94	Phi Gamma Delta
[4]Kildow, Thomas Monroe	Tiffin, Ohio	Philos. 124·49+44	221 Encina
[4]Kiler, Elza Leslie	Santa Barbara	Bot. 47·73+22	4 Union
[234]Kiltin, Russell	Duluth, Minn.	Econ. 5·79+108	58 Encina
[4]Kimball, Alice Windsor	Palo Alto	Ed. G.A. gr.	536 Lincoln-p
A.B., Stanford, 1904			
Kimball, Dexter Simpson	Ithaca, N.Y.	LD 47+1	215 Churchill-p
Kimball, Isabelle Jane	Ithaca, N.Y.	LD 59·47+19	274 Roble
[4]Kimball, Elsa May	Haywood	Educ. ‡	230 Roble
Kimball, Stanley	Vancouver, Wn.	C.E. 100·48+3	Laurel Court,MP
King, Clarence Van H.	San Francisco	LD 38+12	Chi Psi
King, David Litchard	Portland, Ore.	LD 41+19	Chi Psi
King, Donald Eliot	Porterville	Zool.-Med. 182+216	Mayfield-m
A.B., Stanford, 1923			
[23]King, Douglas Low	Palo Alto	LD 64+113	Runnymede, Box505,p
King, Edward D.	East Tawas, Mich.	LD 33·104+5	861 Channing-p
King, Ernest Charles	Mountain View	LD 3·105+10	Mountain View-mv
[12]King, Florence Helen	Hemet	Sch. Ed. gr.	Madroño
A.B., Pomona, 1922			
King, Harold George	Dinuba	LD 47+31	Sigma Chi
[5]King, John Preston	Jasper, Ala.	Law 13·164+33	545 Bryant
A.B., Stanford, 1923			
King, Raymond Irvin	Porterville	Chem. 196+107	821Stanford,M-m
A.B., Stanford, 1923			
Kingrey, Waive Lotha	Santa Ana	Econ. 181+103	Gamma Phi Beta
A.B., Stanford, 1923			
Kinkead, Dorothy E.	Paola, Kans.	LD 46+2	312 Roble
Kinnear, Arthur	San Jose	LD 89+32	421 N. 4th, SJ-sj
Kinney, Paul Burt	San Francisco	Med. gr.	2211 Calif., SF-sf
A.B., Stanford, 1921			
[5]Kinney, Roland Thomas	Los Angeles	Law gr.	Zeta Psi
A.B., Stanford, 1923			
[5]Kinney, Ross Ellsworth	San Jose	Educ. 90·75+55	480 S. 15th, SJ-sj
[3]Kinnison, Court John	Boise, Ida.	LD 111+85	56 Sequoia
[23]Kirby, Dorrell William	Darwin	Min. 43·125+69	71 Sequoia
[5]Kirby, James Millard	Corona	Geol. 150+196	431 Encina

[4]Kircher, William J.	Santa Barbara	Educ. gr.	265 Channing-p
A.B., Stanford, 1920			
[5]Kirk, Howard M.	Bozeman, Mont.	LD 139+11	9 Sequoia
Kirkwood,ArthurC.	ColoradoSp'gs,Colo.	M.E. 181+26	Phi Kappa Psi
A.B., Stanford, 1923			
Kirwan, Nicholas Pierce	Los Angeles	LD 42–20	Phi Gamma Delta
Kissinger, J. Byron	Los Angeles	LD 36–23	Beta Theta Pi
Kittel, Paula M.	Valley City, N.D.	Ger. gr.	Madroño
Ph.B., Chicago, 1920; A.M., Stanford, 1923			
Klahn, Myrtle	Orange	Span. gr.	118 Roble
A.B., Stanford, 1922			
Klauber, Eleanor Barrett	San Diego	LD 45+24	168 Roble
[1]Kleiser, George Wm., Jr.	San Francisco	Econ. 75–29	Sigma Nu
Klenck, Herman A.	Libby, Mont.	Span. 135·50+81	250 Cowper-p
A.B., Stanford, 1923			
Klingberg, Frances	Whittier	Med. gr.	2211 Calif., SF-sf
A.B., Southern California, 1920			
Klink, Carol	San Francisco	LD 95+123	Alpha Phi
[4]Klopfenstein, Fred C.	Redlands	LD sp.	52 Encina
[13]Klyver, Fred, Jr.	Fresno	Phyl. 109+27	302 Union
Knappen, James Fawcett	Campbell	Econ. 188+227	73 Sequoia
A.B., Stanford, 1923			
Knight, Helen Margaret	San Francisco	LD 71·45+70	270 Roble
Knowles, Violet Virginia	San Diego	Math. 90·45+30	274 Roble
Knowlton, Donald Rider	Palo Alto	Min. gr.	1227 Byron-p
A.B., Colorado, 1920			
Knox, Irene E.	Redlands	Med. gr.	Madroño
A.B., Redlands, 1922			
Knox, Wallace William	Beaver, Utah	LD 47+34	Phi Kappa Psi
Koba, Fred Michio	San Francisco	Econ. 131+33	Japanese Club
Koch, George Otto	San Francisco	LD 139+68	502 Encina
[13]Kodani, Hideo	Monterey	LD 19–17	Japanese Club
[1]Koehler, Max Conrad	San Jose	C.E. 112+0	539 Encina
Koepfli, Joseph Blake	Los Angeles	Chem. 146+40	Alpha Tau Omega
[4]Koepsel, Helen J.	Berkeley	Engl. gr.	362 Roble
A.B., California, 1921, M.A., 1922			
[4]Koethen, Dorothy Aldrich	Eagle Rock	LD sp.	317 Roble
Kohler, John A.	Hollywood	LD 45·45+4	Sigma Nu
[5]Kolberg, Erick E.	Milwaukee, Wis.	Econ. 72·94+30	Delta Tau Delta
[12]Konishi, William Hiroshi	Lemoore	M.E. 158–6	Japanese Club
Kopf, L. Josephine	Streator, Ill.	LD 47+38	334 Lincoln-p
[23]Korn, Kathryn Farnham	Oakland	LD 18–2	257 Roble
Korn, Kenneth Ernest	Oakland	LD 45+18	1327 Byron-p

Kotzias, Alexander C.	Athens, Greece	C.E. 154+92	44 Sequoia
[5]Kraemer, Eric Eugene	San Diego	LD 122+26	Phi Kappa Sigma
[4]Kraemer, Mary Webster	San Diego	Cl. Lit. gr.	22 Lasuen
A.B., Stanford, 1897, A.M., 1917			
[134]Kraft, Warren Hamilton	San Francisco	Chem. 176+61	Phi Delta Theta
Krause, Hammond John	Gridley	LD 33–25	250 Encina
[4]Krause, Laura Henrietta	Gladstone,Ore.	LD ‡	310 Roble
Krock, Frederick Henry	Los Angeles	Med. gr.	2201 Calif., SF-sf
A.B., Stanford, 1922			
Krogness, Melville A. R.	San Francisco	LD 90+15	Sigma Chi
Kropp, Donald Joseph	San Francisco	LD 47+35	5 Sequoia
[4]Kropp, Walter John	San Francisco	LD	118 Encina
Krotz, Donald Philip	Salt Creek, Wyo.	LD45+12	Box139,R.F.D.,MP-mp
Krueger, Albert Paul	San Francisco	Zool. 4-91+174	555 Waverley-p
[1]Kruger, Rudolph	San Jose	LD 23–19	340 N. 5th, SJ-sj
[12]Kuckein, Ernst Prussing	Menlo Park	LD sp. 48–27	Box 623, MP-mp
[5]Kuhne, Freda Grandfield	Santa Barbara	Econ. 90-86+48	Pi Beta Phi
[1]Kulmann, Charles Albert	Palo Alto	M.E. 104+65	216 High
[4]Kunzel, Fred	San Diego	LD ‡	1 Lasuen
Kussart, M. Jeannette	Greeley, Colo.	Span. gr.	Madroño
A.B., Colorado State Teachers College, 1918; A.M., Stanford, 1923			
Kylberg, Brother Lars	Merced Falls	LD 83+38	555 Encina
Lacey, Lorin Daryl	Monterey	M.E. 188+52	Delta Upsilon
A.B., Stanford, 1923			
Lacombe, Elizabeth	Mayfield	Hist. gr.	611 Palo Alto, M-m
A.B., Stanford, 1922, A.M., 1923			
[1]Lacombe, Leo George	Mayfield	Cl. Lit. gr.	Mayfield-m
A.M., Stanford, 1921, Ph.D., 1922			
[5]Lagodzinski, Lewis	Stanford Univ.	LD sp. 107+118	4 Sequoia
Lake, Merrill Evans	Burbank	LD 93+5	Kappa Alpha
Lamb, Henry Clarence	Fallbrook	LD 86+69	345 Encina
Lamb, Malcolm Winslow	Oakland	LD 46+50	Kappa Sigma
Lamson, David Albert	Palo Alto	LD 86+106	319 Pope-p
Lamson, Margaret Eunice	Palo Alto	Med. gr.	319 Pope-p
B.A., Oregon, 1919			
Landels, Edward Durley	Stanford Univ.	Law gr.	20 Sequoia
A.B., Stanford, 1923			
Landis, Philip Flint	Oakland	Pol. S. 180+135	54 Sequoia
A.B., Stanford, 1923			
Landweer, André Eisso	Santa Clara	LD 144+11	116 Encina
Landwehr, Walter R.	Astoria, Ore.	Geol. gr.	346 Encina
Engineer, Montana State School of Mines, 1922			
[23]Lane, George Richard	Alhambra	LD 14–20	325 Encina

Lane, John Calhoun — Oakland — M.E. 181+173 — 223 Encina
A.B., Stanford, 1923
[2]Lane, Robert Martin — Washington,D.C. — LD
[4]Lane, William Augustus — Tucson, Ariz. — LD ‡ — 115 Alma-p
[5]Lang, Albert Ray — Palo Alto — Educ. gr. — 481 Lytton-p
A.B., Nebraska, 1912
Lang, Mary Edith — Fullerton — Bot. gr. — 221 Roble
A.B., Stanford, 1923
[234]Lang, Otto William — Spokane, Wn. — Chem. gr. — Sigma Alpha Epsilon
B.S., Washington State College, 1921
Lang, Robert Edward Lee — Dallas,Texas — Econ. 184+118 — 206 Union
A.B., Stanford, 1923
Langer, Bernard F. — San Francisco — LD 46+47 — 209 Encina
Langerman, I. Newton — Portland, Ore. — Econ. 93·91+20 — 534 Encina
A.B., Stanford, 1923
[4]Langford, Ida — Encinitas — LD ‡ — 235 Emerson-p
Langford, Lester W. — North Platte, Neb. — Econ. 135+126 — Phi Delta Theta
Langford, Russell R. — North Platte, Neb. — Pol.S.-Law 189+113 — Phi D.Theta
A.B., Stanford, 1923
Langley, Rolland Ament — San Jose — LD 46+41 — Alpha Sigma Phi
Lanterman, Horace W. — Mandan, N.D. — Econ. 94·88+136 — 533 Middlefield-p
A.B., Stanford, 1923
[5]Lantzeff, George V. — Petrograd, Russia — Sch. Ed. gr. — 325 Union
University of Petrograd, 1918; A.M., Stanford, 1922
[234]Lapiere, Richard Tracy — Laguna Beach — LD sp. 28+17 — 227 Encina
Lapp, Burton Leonard — San Jose — Econ.-Law 136+4 — 428 Encina
Larnach, Donald W. P. — Honolulu, T.H. — M.E. 104·49+30 — 332 Union
Laslett, Herbert Reynolds — Palo Alto — Psych. gr. — 427 Webster-p
A.B., Kansas, 1918; A.M., Stanford, 1923
[4]Latham, Ara David — Tucson, Ariz. — LD ‡ — 137 Encina
Laub, Egbert Warren — Santa Cruz — Chem. 132+45 — 323 Encina
Lauer, Donald Taylor — Payette, Idaho — LD 97+178 — 345 Encina
[5]Laughlin, Herbert Sidney — Los Angeles — Law 9·107–5 — 81 Sequoia
[12]Laughlin, Homer, III — Los Angeles — LD 11–9 — 36 Sequoia
[5]Lavelle, Michael James — Los Angeles — Law 29·103+33 — 305 Union
[23]Law, Raymond Frakes — Stanford Univ. — Psych. 52·80+38 — 53 Sequoia
Lawrence, Frances — Los Angeles — LD 45+57 — 279 Roble
Lawrence, Grove — San Mateo — LD 99+39 — Theta Xi
[12]Lawrence, Helen Jean — San Mateo — Econ. 120+108 — Delta Gamma
Lawshe, Catherine L. — Los Angeles — LD 47+57 — 353 Roble
[5]Lawson, Dick — Long Beach — LD 46–18 — Delta Kappa Epsilon
[1]Lawson, James W. — Long Beach — LD 32–6 — Delta Kappa Epsilon
Lawson, Oliver L. — Oakland — LD 86–10 — 309 Encina

[4]Layman, Mary H. Ludwig Maxmilian University, 1913	San Francisco	Psych. gr.	1 Arguello
Lazier, Richard Frederick	Lompoc	LD 48+47	425 Encina
[4]Leach, Raymond Hotchkiss A.B., Oberlin, 1904	Reno, Nev.	Hist. gr.	645 Gilman
[1]Leach, Wanda Connell	Hollywood	Ed. G.A. 158–14	Chi Omega
Learnard, Mary A.B., Stanford, 1923	Gilroy	Fr. 182+200	300 Roble
Learnard, Polly Dee	Gilroy	LD 90+95	300 Roble
[4]Learned, Roy Ernest A.B., College of the Pacific, 1915	College City	Educ. gr.	716 Emory, SJ-sj
Lechten, A. Madeleine A.B., Stanford, 1923	San Francisco	Cl. Lit. 25·155+51	149 Roble
Lee, Beatrice	Las Animas, Colo.	Hist. 125+29	Alpha Omicron Pi
[1]Lee, Chiu-Hung	Canton, China	Educ. 16·91+7	Box 702, MP-mp
[4]Lee, Leslie Ward A.B., Grinnell, 1916	Marcus, Wn.	Educ. gr.	Sigma Alpha Epsilon
[3]Lee, Margaret E. T.	Stanford Univ.	LD 15+3	16 Salvatierra
[23]Lee, Ruth D. T. A.B., Stanford, 1922	Stanford Univ.	Chem. gr.	16 Salvatierra
Lee, William George, Jr.	Auburn	M.E. 7·131+38	56 Sequoia
Leeds, Fred Barclay	Los Angeles	Econ. 132+109	Kappa Alpha
Leffingwell, Marion Preston A.B., Stanford, 1923	Pasadena	Econ. 90·90+67	316 Roble
[18]Leggett, Joseph Palmer	Carthage, Mo.	LD 47·29–1	R.F.D.1,Box9-p
Legraye, Michel P. H. University of Liege, 1922; A.M., Stanford, 1923	Ostend,Belgium	Geol. gr.	745 Cowper
[5]Leh, Marcus DeWitt	Trident, Mont.	Geol. 121+60	SigmaAlphaEpsilon
[4]Leib, Karl Elias A.B., Stanford, 1916	Iron Mt.,Mont.	Geol.	231 Union
[5]Leiser, William Fred A.B., Stanford, 1921, J.D., 1923	Twin Falls, Ida.	Law gr.	531 Encina
Leistner, Hugo	Palo Alto	LD 45–16	309 Encina
LeMarinel, Kenneth F. A.B., Stanford, 1923	Spokane, Wn.	Min. 187+89	Alpha Delta Phi
[134]Leonard,JamesM.,Jr.	VirginiaC.,Nev.	LD 74–5	229 Encina
[4]Leve, Lewis Hayd	Stanford Univ.	Law 46·77+76	Kingscote
[3]Levi, John Newmark	Los Angeles	LD 14+3	11 Sequoia
[5]Levison, Walter Herman	San Francisco	Econ. 120+44	420 Encina
[5]Levit, Bertram William	San Francisco	Law 135+221	307 Encina
[5]Levy, Scherl Maurice	Joplin, Mo.	Engl. 154+260	25 Salvatierra
[12]Lewis, Daniel Petrov	Yakima, Wn.	LD sp. 15–19	275 Hamilton
Lewis, Harold James	Long Beach	LD 42+45	Alpha Sigma Phi

[23]Lewis, Helen Marion	Talisay, P.I.	LD 24-29+37	282 Roble
[4]Lewis, John Emerson	Tucson, Ariz.	LD ‡	105 Encina
Lewis, Lyman Wilson	El Paso, Texas	LD 39-50+25	9 Sequoia
Lewis, Percy Williams	LaGrange, Ill.	LD 50+20	Alpha Kappa Lambda
[3]Lewis, Rhoda Valentine	Talisay, P.I.	LD 15+30	284 Roble
Lewis, Richard C.	Mountain View	LD 102+34	Mountain View-mv
[5]Lewis, Robert Ernest	Los Angeles	Econ. 75+69	307 Encina
[1]Lewis, Warren Frederic	Stanford Univ.	Engl. gr.	Sequoia
A.B., Stanford, 1922			
[34]Licking, Wm. Errol Battle	Mountain, Nev.	Law 96-14+4	336 Encina
Liebendorfer, Donald E.	Modesto	Econ.-Jn. 123+43	325 Encina
Lies, Margaret Anna K.	Waterville, Wn.	Econ.22-161+111	Gamma Phi Beta
A.B., Stanford, 1923			
[5]Likely, Homer Edmund	Stanford Univ.	Chem. gr.	318 Encina
A.B., Stanford, 1922			
Liljenstein, Gustaf Moses	Palo Alto	Chem. 183+63	530 Emerson-p
A.B., Stanford, 1923			
[5]Lima, Ida May	Nahant, Mass.	Psych. gr.	813 Cowper
A.B., Stanford, 1923			
Lindahl, James Dalvida	Spokane, Wn.	Law gr.	538 Cowper-p
B.S., Washington State College, 1919			
Lindersmith, Harry E.	Westwood	Law gr.	620 Gilman-p
A.B., Stanford, 1922			
[1]Lindley, Francis Haynes	Los Angeles	Pre-Med. ‡ 0–24	808 Waverley-p
Lindsey, Hugh Miller	Modoc, Ind.	LD 97+123	110 Encina
Linn, Flora	Kansas City, Mo.	Engl. 135-53+54	369 Roble
A.B., Stanford, 1923			
[23]Linneman, Lawrence J.	Watsonville	Econ.-Law 109+27	527 Encina
Lippincott, Gardner P.	Hollywood	LD 47+9	Beta Theta Pi
Lissman, Marcel Alfred	Sacramento	LD 5-94+164	307 Encina
Litton, Charles Vincent	Redwood City	LD 119+163	Eaton ave., RC-rc
[12]Livesay, Ruth Haines	Palo Alto	Educ. gr.	333 Lincoln
A.B., Pacific, 1917; M.A., Washington, 1921			
[5]Livesay, Thayne Miller	Palo Alto	Educ. gr.	333 Lincoln
A.B., Pacific, 1917; M.A., Washington, 1921			
Livingston, Arthur Dean	Modesto	Chem. gr.	523 Encina
A.B., Stanford, 1922; A.M., 1923			
[4]Livingston, Gladys	San Francisco	LD	278 Roble
Lloyd, Edward Warren	Los Angeles	LD 45+77	Alpha Delta Phi
Lockett, Charles C.	Alhambra	LD 80+33	Alpha Sigma Phi
[2]Lockhard, Lois P.	San Francisco	Chem. gr.	2900 Pacific, SF-sf
A.B., Vassar, 1918; M.A., California, 1922			
Lockton, Eugene Andrew	Windsor	LD 101+31	Alpha Kappa Lambda

Loder, Arthur William	Palo Alto	Law 83+15	426 Florence-p
Loder, Edward Stark	Palo Alto	C.E. 153+49	426 Florence-p
[5]Loewenson, Leland H.	Portland, Ore.	Econ. 143+45	532 Encina
[5]Loewenstein, Alfred B.	San Francisco	Econ. 146+45	400 Encina
[13]Logan, William Archibald	San Diego	LD 14·70+65	Phi Delta Theta
Lombard, George Porter	Yakima, Wn.	LD 91+11	Phi Gamma Delta
Londahl, Cyrus Ausgar	San Francisco	LD 82+13	65 Sequoia
[5]Long, Bryce Linwood	Sanford, Me.	LD ‡ 27–5	11 Salvatierra
Long, Eldon Addington	San Francisco	LD 151+178	116 Encina
[4]Long, Harold Boyd	Norcatur, Kans.	LD ‡	1832 Cowper-p
Long, Hubert Edward A.B., Stanford, 1923	Palo Alto	Zool. 45·137+53	365 Forest-p
[3]Long, Merrill Edward	Sacramento	LD 11–9	26 Sequoia
[12]Long, Raymon Wallace	Ashland, Ore.	M.E. 51–16	Sigma Nu
[5]Longfellow, Henry W.	Washington,D.C.	LD 51·109+15	Alpha Sigma Phi
Loomis, Francis B., Jr.	Burlingame	LD 67·41+39	325 Chapin, B-b
Loomis, Frederick Claxton	Pasadena	Econ. 6·163+53	Alpha Delta Phi
[234]Loose, Warren Dean A.B., California, 1922	Provo, Utah	Law gr.	Phi Kappa Psi
[4]Loper, Margaret	Fresno	LD ‡ 29–22	Kingscote
[234]Lopin, Anna Mildred A.B., Stanford, 1922	Sunnyvale	Chem. gr.	241 Roble
Lorraine, Laura May	Palo Alto	LD 76+90	460 Homer-p
[12]Loskamp, Alvin Powell B.S., Syracuse, 1921	Los Angeles	Geol. gr.	Zeta Psi
Lothrop, Marcus	San Bernardino	LD 9·130+23	26 Sequoia
Love, Charles Ashton, Jr. A.B., Doane, 1914	Atascadero	Med. gr.	2321 Sac'to, SF-sf
Love, Mary Craven	Riverside	LD 89+66	163 Roble
[4]Lovejoy, Helen Bernice A.B., College of the Pacific, 1922	Morgan Hill	Span. gr.	208 Roble
[5]Lovekin, Osgood Stevens	Riverside	Phyl. 111·43+77	337 Encina
Lovelace, Manuel Burr	Dinuba	LD 35+17	Zeta Psi
Loveless, Joseph E.	Johnson City, N.Y.	Econ. 123+112	39 Sequoia
Lucas, Alfred Francis	Santa Rosa	LD 31–3	30 Encina
[4]Lucas, Robert Arden	Weston, Ore.	LD 5–11	1831 Waverley-p
Lucas, William Dennis	Yakima, Wn.	LD 93–18	Chi Psi
Luckhardt, Charles E.	San Jose	LD 45·47+16	30 S. 12th, SJ-sj
Ludeke, Frederic Sebastian	Shandon	Law 148+105	230 Encina
[4]Lund, Alice Henrietta A.B., Kansas, 1914; A.M., Chicago, 1918	Arcata	Psych. gr.	240 Roble
Lund, Gage Virtus	Bozeman, Mont.	LD 83·42+21	9 Sequoia

[23]Lundberg, Alice Evelyn	Salt Lake City, U.	Hist. ‡ 14–19	372 Roble
[1]Lundberg, Harold C.	Grants Pass, Ore.	LD 25·20–12	Alpha Tau Omega
Lundquist, Dell Theodore A.B., Stanford, 1922	Middletown	Med. gr.	508 Encina
Lundquist, Leonard C. A.B., Stanford, 1922	San Francisco	Min. gr.	25 Alvarado
[12]Lunsford, Helen Elizabeth	Palo Alto	LD 72+3	1036 Bryant-p
Lusignan, Harry Richard	Stockton	LD 87+12	57 Sequoia
Lusk, George Everett	Pasadena	Econ. ‡ 44–3	213 Union
Lynch, Frank Carlin Ph.B., Brown, 1921; A.B., Stanford, 1923	Somerset, Mass.	Econ. gr.	212 Union
[4]Lynd, Louise Blount B.S., Columbia, 1920	Tempe, Ariz.	Educ. gr.	168 Roble
Lyne, Walter C., Jr.	Salt Lake City, U.	LD 42+8	137 Encina
[5]Lynn, Harold Fredric	Palo Alto	Geol. 149+36	181 Tasso-p
Lyon, Barbara	Hillsborough	LD 44+61	178 Roble
[5]Lysaght, George William	San Francisco	Econ. 27·93+125	425 Encina
[23]Lytel, Harvey Maxwell	Stanford Univ.	LD sp. 42–5	Delta Chi
[4]McAdams, Nettie F. A.B., California, 1922	Berkeley	Engl. gr.	Hotel Alexandria-p
[23]McAllister, Charles H.	San Francisco	LD 26+13	Kappa Sigma
[5]McAllister, Erford Ansel A.B., College of the Pacific, 1922	San Jose	Hist. gr.	353 Lytton-p
McAllister, Harold H.	Sale Lake City, U.	LD 44–23	404 Encina
McAnear, Anna	Sacramento	LD 45+8	357 Roble
[4]Macaya, Alfonso	San Jose, C. R.	LD	Seale Academy-p
[4]Macaya, Juan Jose	San Jose, C. R.	LD	Seale Academy-p
[4]Macaya, Roman Frederico	San Jose, C. R.	LD	Seale Academy-p
[12]McBride, Rexford Wm. A.B., Stanford, 1923	Stanford Univ.	Bact.-Med. 205+73	15 Mirada
McBride, Ruth Adella	Berkeley	Law 97·45+18	323 Roble
McBurney, Raymond Dean	Los Angeles	Pre-Clin. 119·77+35	304 Encina
McCaffery, B. Emmett	Portland, Ore.	Law 142+140	203 Encina
McCahan, Kathryn Cochran	Los Angeles	LD 65+18	Alpha Phi
McCall, Elizabeth Fluhrer	Pixley	LD 43+68	359 Roble
[4]McCall, James Sadler	Carlsbad, N.M.	LD ‡	Campus
McCallister, Charles Harold	Long Beach	LD 89+44	Phi Kappa Psi
McCandless, William W.	Inglewood	LD 74+4	Chi Psi
McCanse, Mabel L.	Santa Rosa	Hist. 149+103	249 Roble
McCarty, Honora Kathryn A.B., Stanford, 1923	Palo Alto	Zool.-Med. 10·201+254	381 Roble
McCauley, Dallas Ramsey	Los Angeles	LD 47·47+13	Phi Kappa Sigma

McCleave, Kathryn Eloise Berkeley LD 71·39+18 Gamma Phi Beta
McCleave, Thomas Crooke, Jr. Berkeley LD 47+41 Delta Upsilon
McClellan, Elizabeth de Levis San Mateo Fr. 188+46 Chi Omega
A.B., Stanford, 1923
[5]McClelland, John M. Cincinnati, Ohio Fr.78·47+51 62Encina,Bx.5MP-mp
[13]McClinton, Ralph Edwin Burlingame Law 109+54 1201 Cabrillo, B-b
[4]McClure, CharlesRaym'd Hagaman,N.Y. Engl. gr. Kappa Sigma
A.B., Maryville College, 1922
McClure, Thomas C. Long Beach Econ. 48·132+27 Kappa Alpha
A.B., Stanford, 1923
[4]McComb, Jesse Edward Phoenix, Ariz. LD ‡ Sigma Alpha Epsilon
[5]McCombie, Harold Edward SanAndreas Law gr. 315 Union
A.B., Stanford, 1922
[1]McCombs, William Clyde Palo Alto M.E. 45·61–21 214 University-p
[12]Macconel, Dermont N. Honolulu, T.H. M.E. 122+16 Sigma Chi
[5]Macconel, Robert L. Stanford Univ. Econ. 67·95+42 Sigma Chi
[4]McConnell, Grace Louise Sacramento Chem. ‡ 357 Roble
McCook, Rupert Francis Long Beach LD 44+36 564 University-p
McCrea, Alexander W. Los Angeles Law 181+23 307 Union
A.B., Stanford, 1923
McCrea, Francis Randolph Long Beach Med. gr. 2436 Clay, SF-sf
A.B., Stanford, 1922
[5]McCready, John Donald Redlands Econ. 124+38 Theta Delta Chi
[1]McCreery, John Harold Coronado LD 33–19 231 Cowper
[4]McCue, Gerald E. Colusa Chem. 83–12 43 Encina
[2]McCulloch, Hazel Minot, N.D. Hist. gr. 305 Hamilton-p
A.B., Minnesota, 1912
[4]McCully, Leona Hadley Palo Alto Educ. gr. 1035 Bryant-p
A.B., Indiana, 1905
McCutchan, John S. Stanford Univ. Econ. 187+43 Alpha Delta Phi
A.B., Stanford, 1923
[5]McDermid, Finlay Angus Palo Alto LD 48+66 603 Middlefield-p
McDermont, Gilbert Roy Fullerton LD 46+19 SigmaAlphaEpsilon
[5]McDermoth, Alanson W. Aberdeen, Wn. Chem. gr. 790 Palo Alto-p
A.B., Stanford, 1920, A.M., 1921
[4]McDonald, Floy Redlands LD 325 Roble
MacDonald, Frank Allan San Francisco Med. gr. 220 Golden Gate, SF-sf
A.B., Stanford, 1921
McDonald, Howard Austin Palo Alto Geol. 118·61+14 1225 Byron-p
McDonald, Juilliard Santa Rosa LD 76+24 Delta Kappa Epsilon
McDonald, Marjorie K. Toppenish, Wn. Fr. 54·120+166 Gamma Phi Beta
A.B., Stanford, 1923
McDonald, Robert Emmett Berkeley Geol. 36·117–23 Sigma Chi

[4]McDonald, Teresa Eleanor Berkeley Hist. gr. 333 Roble
A.B., California, 1922
[5]McDonald, Thomas E. Roganville, Tex. Law gr. 411 Lytton-p
A.B., Stanford, 1922
McDonnell, Mary Agnes Tacoma, Wn. Engl. 99·81+65 266 Roble
A.B., Stanford, 1923
McDougall, Kenneth R. Stanford Univ. LD 44+82 Alpha Kappa Lambda
[124]McDowell, Edgar Allen Stanford Univ. LD 22+29 Los Altos
McDowell, Margaret D. Ashland, O. LD 47+73 272 Roble
Mace, John Lyndon San Francisco Law 133+86 Zeta Psi
McEachen, Howard Donald Wayne,Neb. LD ‡ 28–20 Theta Delta Chi
[14]McElligott, Merian H. San Francisco Hist. 109+17 222 Roble
[4]McEwen, Irene M. Faribault, Minn. LD sp. 272 Roble
McGann, Basil Louis Los Angeles LD 49+37 Phi Kappa Sigma
[23]McGee, Theiline Juneau Oakland LD 46·26+1 Delta Gamma
McGettigan, Charles C. San Francisco LD 41–16 Delta Tau Delta
[234]McGill,Geo. Franklin Ft.Ontario,N.Y. Econ. 10·156+26 Sigma Nu
[23]McGough, Ethel San Bernardino LD 29+25 177 Roble
MacGovern, Sara Gwendolyn Vallejo Engl. 92·53+3 258 Roble
[5]McGrath, Morgan James Palo Alto LD 100+10 567 Forest-p
[23]McHenry, Merl Langdon Alameda LD 69·29+42 Zeta Psi
McHose, John Cresco Ashland, Ohio Law 122+87 Phi Delta Theta
[5]McIntosh, F. Russell Salt Lake City, U. Min. 147+110 Phi Kappa Sigma
Macintosh, Richard R. Santa Monica LD 128+8 Sigma Nu
[5]McIntyre, Glenn H. Santa Clara Chem. 145+74 AlphaKappaLamb.
Mack, Helen Elizabeth Oakland Fr. 100·87+88 Alpha Phi
A.B., Stanford, 1923
Mack, Henry Clayton Bakersfie'd Law 141+79 Delta Chi
Mack, John Erick Pasadena LD 47+24 Phi Kappa Psi
[23]McKague, Bruce Carrol Altoona, Pa. Geol. 62·118+6 Kappa Alpha
A.B., Stanford, 1923
MacKamey, Rhodus Palo Alto LD 33–4 324 Emerson-p
McKay, Donald Cope Salt Lake City, U. LD 72+96 327 Encina
McKay, John James San Francisco LD ‡ 23–18 22 Elgin Park, SF-sf
McKay, Warren Scott Fresno M.E. 82·45+53 57 Encina
McKechnie, Frank Berkeley LD 70+88 181 Tasso-p
McKee, Donald Palo Alto C.E. 75·80+26 243 Everett-p
[234]McKee, Dorothy Rolph Palo Alto Chem. 103·30+50 243 Everett-p
[12]McKee, Norman Campbell Woodside M.E. 86·94+4 500 Encina
A.B., Stanford, 1923
[4]McKellar, Ella Clare Fitzsimmons,Colo. Psych. gr. 267 Roble
M.A., Georgia, 1917

McKelvy, Addison P.	Atchison, Kans.	LD 44·47+1	228 Encina
McKenney, Arthur C., Jr. A.B., Stanford, 1922	San Francisco	Med. gr.	1020 Union, SF-sf
McKenney, Philip Wash	Oakland	Phyl. 141+44	344 Encina
McKenzie, Roger Bain A.B., California, 1919	Santa Monica	Med. gr.	2136 Pacific, SF-sf
Mackey, Margaret G.	Los Angeles	Fr. 130+90	Gamma Phi Beta
McKibbin, Mabel Ferris	Portland, Ore.	LD 23·96+130	Alpha Phi
McKinney, John William	Roswell, N.M.	C.E. 132+76	507 Encina
[5]MacKinnon, Hugh Sanborn A.B., Stanford, 1923	Berkeley	Law 135·45+26	207 Union
[5]Mackson, Julius A.B., Stanford, 1922	San Francisco	Law gr.	537 Encina
[3]McLaughlin, Evlyn	San Francisco	Chem. 87·26–3	361 Roble
[4]McLaughlin, Margaret B. B.S., Iowa State College, 1919	Newcastle, Wyo.	Sch. Ed. gr.	279 Roble
McLean, William Ellis	Portland, Ore.	LD 101+4	750 Bryant-p
McLellan, Roderick Irving	Burlingame	LD 55+46	306 Encina
[134]McLeod, Gertrude E.	San Francisco	LD 73+59	Delta Gamma
[23]McLeod, Gladys Marian	San Francisco	LD 31+12	323 Roble
[4]McMannis, John T. A.B., Stanford, 1897, A.M., 1902	Fullerton	Hist. gr.	Campus
[1]McMahon, Daniel Alan	Palo Alto	LD sp.	826 Waverley-p
[4]McMaster, William Henry A.B., South Dakota, 1914	Oakland	Educ. gr.	Sigma Alpha Epsilon
McMenamin, James Thomas A.B., Stanford, 1921, J.D., 1923	Sebastopol	Law gr.	321 Encina
[34]Macmillan, Herbert G.	Salt Lake City, U.	LD 7–9	306 Encina
[4]McMullen, Gay Edward	Tucson, Ariz.	LD sp.	446 Hamilton-p
McMullen, Richard K.	Dalhart, Tex.	LD 44+25	115 Alma-p
[4]McMurty, Wanda Mabel A.B., Stanford, 1922	Lodi	Sch. Ed. gr.	405 Kipling-p
McNair, Sarah P. A.B., Stanford, 1923	Great Falls, Mont.	Span. 97·89+19	KappaKappaGam.
[234]McNichols, Charles L.	Los Angeles	Engl. 62+48	424 Seneca-p
[1]McNulty, Leighton	San Francisco	LD 12–25	418 Ramona-p
McPhee, Victor Charles A.B., California, 1922	San Francisco	Med. gr.	3324 21st st., SF-sf
McPherson, Mahlon Daniel	Santa Cruz	LD 51·45+46	138 Encina
[5]MacQuarrie, Thomas Wm. A.B., Stanford, 1922, A.M., 1923	Mayfield	Educ. gr.	411 Amherst, M
[1]McQueen, Donald Hugh	Modesto	LD 56+16	331 Encina
[1]MacRae, Richard Loomis	Los Angeles	LD 59+21	Delta Upsilon

[5]MacRoberts, James Melvin	Los Angeles	Econ. 54·119+62	Delta Upsilon
[1]Macrorie, John James	Whittier	LD 35–19	Sigma Chi
McRuer, John Torrance A.B., Parks, 1913; A.M., Stanford, 1923	Palo Alto	Educ. gr.	349 High-p
[4]McRuer, Ruth Bartlett A.B., Parks College, 1913	Palo Alto	Sch. Ed. gr.	349 High-p
McVey, Archie	Coronado	Engl. 111+20	19 Alvarado
Magarian, Gaspar H. A.B., Stanford, 1923	Fresno	Econ.-Law 193+117	56 Encina
[23]Maguire, James F., Jr.	Klamath Falls, Ore.	LD 12–25	355 Encina
[23]Mahan, Archie Gordon	Los Angeles	LD 27–6	Kappa Alpha
[23]Mahoney, Daniel Emmet	Arcata	Min.‡ 19–19	127 Encina
Mahoney, Gilbert M.	Portland, Ore.	LD 73–1	61 Sequoia
Mahoney, Joseph Boren	Dallas, Tex.	LD 45+6	404 Encina
Maier, Herman Louis A.B., Stanford, 1923	Burlingame	Econ. 180+81	Burlingame-b
Maillot, Elmer Ellsworth A.B., Stanford, 1923	Alameda	Geol. 201+62	Theta Xi
Main, Norman Francis T. A.B., Missouri, 1920	Hemet	Law gr.	309 Union
[5]Maine, George Goodell	Stillwater, N.J.	Chem. 45·104+37	330 N. 3d, SJ
[5]Malaby, John Richard	Palo Alto	Engl. 21·131+68	551 Lytton-p
[124]Malinowsky, Joyce	Patterson	Hist. 100+21	Mayfield-m
Mallory, Cethil Elwood	Santa Cruz	LD 31–16	15 Mirada
Mallory, Dora	Fresno	Hist. 145+69	310 Roble
Mancini, John Adolph	Hayward	LD 49+65	21 Sequoia
[12]Mandl, Josephus P. A.B., Stanford, 1920, J.D., 1923	Stanford Univ.	Law gr.	42 Encina
[23]Manger, Rich'd R.	White Sul. Sp's, Mont.	LD 10·91+157	Cowper Court-p
Manning, Walter Day	Hayward	LD 40+3	114 Encina
Mannoccir, F. David II	Hollywood	Law 131+22	Beta Theta Pi
Mannon, James Bramlet	Ukiah	LD 50+82	109 Encina
[4]Mansar, Helen Constance	Altadena	LD	225 Roble
Mansfeldt, John Harold A.B., Stanford, 1923	San Francisco	Pre-Clin. 132·53+57	313 Union
Marble, John Maclaren	South Pasadena	LD 95+55	Alpha Delta Phi
[4]Marchino, Mary Ignatius A.B., Indiana, 1922	Vincennes, Ind.	Sch. Ed. gr.	237 Roble
[1]Marcus, Samuel Waldo	Watsonville	LD 110–25	357 Encina
[12]Marino, Herbert Daniel	Stockton	Phyl.-Med. 94·119+34	326 Union
Marks, George Albert	Los Angeles	LD 86+0	Delta Chi
Marks, Graham Wallace	Spokane, Wn.	LD 55+61	427 Encina
Marlow, Arthur Ashley	San Diego	LD 108+54	Delta Tau Delta

Marquis, Cecil Isaac	Twin Falls, Ida.	Econ. 43·79+21	31 Encina
Marsh, Chester	Buhl, Ida.	Med. gr.	2215 Buchanan, SF-sf
A.B., Stanford, 1922			
[234]Marsh, James Adolphis	SaltLakeCity, U.	Geol. 112·27+1	840 Bryant-p
[12]Marsh, Loveridge Warren	Brawley	LD 22–22	349 Encina
Marshall, Donald Carlyon	Sunnyvale	Pre-Med. 122+198	Sunnyvale-s
[23]Marshall, Helen	Stanford Univ.	Psych. gr.	Madroño
A.B., Lake Erie, 1913; A.M., Ohio, 1918			
[23]Marshall, Oscar C.	San Francisco	Med. gr.	2018 Webster, SF-sf
A.B., Stanford, 1922			
[12]Marshall, Samuel H.	Madison, Wis.	Geol. gr.	20 Lasuen
B.A., Wisconsin, 1921			
Marston, Homer Eugene	San Rafael	Med. gr.	416 E St., SR-sr
A.B., Stanford, 1921			
Martin, Henry A.	Watsonville	LD 88+42	527 Encina
[13]Martin, Horace Edmund	Santa Monica	LD 69–5	Chi Psi
Martin, Howard Wilson	Corcoran	LD 45+12	446 Encina
[3]Martin, Kenneth George	Watsonville	LD ‡ 14–8	446 Encina
[5]Martin, Laurence Butler	Palo Alto	Law gr.	629 Emerson-p
A.B., Stanford, 1922			
Martin, Vincent Lyman	Los Angeles	LD 60+11	68 Sequoia
[4]Marum, Pauline Gertrude	San Francisco	Cl.Lit.gr.	Coll.Sac.Heart, MP-mp
A.B., College of the Sacred Heart, 1923			
[5]Marvin, Stanley	Vallejo	LD sp. 5·71+31	210 Encina
[4]Marx, George W.	Tucson, Ariz.	LD ‡	
[234]Mascord, Elizabeth F.	San Jose	Educ.gr.	345E.SanAntonio, SJ-sj
B.S., Columbia, 1907, A.M., 1908			
[23]Mason, Georgia Steirly	Watsonville	LD ‡ 45+5	Kappa Alpha Theta
Mason, Marshall Irwin	Palo Alto	LD 94+64	33 Encina ave.-p
[1]Mason, Paul	Palo Alto	Pol. S. gr.	Hotel Palo Alto-p
A.B., Brigham Young, 1920; A.M., Stanford, 1923			
[3]Mason, Rowena Steirly	Watsonville	LD 23·15+22	159 Roble
[5]Masters, Alfred Richard	Portland, Ore.	Geol. 172+51	335 Encina
Mather, William Max	Spokane, Wn.	LD 39·41+46	109 Encina
[5]Mathes, Mary E.	Palo Alto	Pre-Med. gr.	1402 Emerson-p
A.B., Oregon, 1920			
[4]Mathews, Hannah Lucas	Palo Alto	LD ‡	Castilleja Sch.-p
Mathews, Homer Hamilton	Pullman, Wn.	Law gr.	Sigma Alpha Epsilon
B.S., Washington State College, 1918			
Mathewson, Carleton, Jr.	Fresno	Pre-Clin. 135·47+29	1020 Ramona-p
A.B., Stanford, 1923			
Matson, Theodore Malvin	Mitchell, Neb.	Chem. 191+89	426 Encina
A.B., Stanford, 1923			

[1]Matsumura, Kiyoshi	San Francisco	Pre-Clin. 135·43–12	JapaneseClub
[34]Matthay, Ferdinand L.	Los Angeles	LD 16+11	29 Encina
Maupin, James Lawrence, Jr. A.B., California, 1921	Fresno	Med. gr.	735 Taylor, SF-sf
[12]Maurer, Mildred L. A.B., Stanford, 1921	Alameda	Engl. gr.	Kappa Alpha Theta
[4]Maw, Charles E. A.B., Stanford, 1903	Plain City, Utah	Chem. gr.	201 Encina
May, J. Earle	Los Angeles	Econ. 110–3	33 Sequoia
Mayer, Leona Minna A.B., Stanford, 1923	San Francisco	Chem. gr.	318 Roble
[1]Mayfield, Charlotte May	Suisun	LD ‡ 14–18	Gamma Phi Beta
[12]Maynard, Barron Homer	Los Angeles	LD 14·42–11	512 Encina
Meadowcroft, Allan James	Modesto	LD 50+94	107 Encina
Meads, Norma Mae A.B., Stanford, 1923	San Jose	Educ. 67·113+7	AlphaOmicronPi
Means, Lucy Woodbridge	San Mateo	LD 42·43+6	Pi Beta Phi
Meehan, William John	Palo Alto	LD sp. 10·55+8	201 Homer-p
Meiklejohn, David C.	Baldwin Park	LD 48+27	140 Encina
[12]Melkonian, Leon	Fresno	Pre-Clin. 94·97+41	316 Union
[4]Meloy, Lawrence Vinton	Globe, Ariz.	LD sp.	124 Encina
Melrose, Anna	San Mateo	LD 24·63–1	Kappa Alpha Theta
[3]Mendenhall, Lee Otey	Oakland	LD 14+7	Sigma Nu
Mendenhall,Samuel Hardin	Long Beach	Engl.-Jn. 125–7	418 Encina
Merrill, Anna Frances	Salt Lake City, U.	Engl. 44·83+31	Delta Gamma
Merrill, Aurelia Marie A.B., Stanford, 1923	Redwood City	Math. 180+201	218 Roble
Merrill, Charles White A.B., Stanford, 1922	Stanford Univ.	Min. gr.	57 Encina
Merrill, Ernest Nathaniel	Redwood City	M.E. 109+60	Theta Xi
[2]Merrill, Ruth Frances A.B., Stanford, 1923	Menlo Park	Engl.-Jn. 186+170	Delta Gam.-mp
[5]Merrill, Guy Roger	Auburn, Maine	LD sp. 64+34	542 Cowper-p
[2]Merrill, Maud Amanda A.B., Oberlin, 1911; A.M., Stanford, 1920	Owatonna,Minn.	Educ. gr.	30 Alvarado
Merrill, Wayne Locklin A.B., Stanford, 1923	Indianapolis,Ind.	Chem. gr.	Phi Delta Theta
Merritt, Russell Staples	Santa Rosa	LD 45·67+1	54 Sequoia
Mertz, Lawrence Lewis	Chicago, Ill.	Econ. 46·90–12	Beta Theta Pi
Mertz, Vieth Theodore	Chicago, Ill.	Econ. 48·114+145	Beta Theta Pi
Meskimons, Sara Hervey	Merced	LD 96+134	152 Roble
[3]Metzler, William Herman A.B., Stanford, 1919	Los Gatos	Law gr.	628 Gilman-p

[12]Meyer, Charles Lorentz A.B., Stanford, 1923	Sebastopol	M.E. 184+229	424 Encina
[1]Meyer, Dorothy Farrar	Oakdale	LD 58–12	Gamma Phi Beta
Meyer Norton	San Francisco	LD 76–11	208 Encina
[2]Meyer, Philip N.	Richmond	LD 63–8	Delta Tau Delta
Meyer, Wesley Gordon	San Francisco	LD 9–13	424 Encina
[23]Meyer, William Wilfred	San Francisco	LD 33+35	329 Encina
[23]Meyers, Philip Thomas	Bakersfield	LD 28+19	Delta Chi
[12]Michelson, Casper Alex. B.S., Utah, 1921	Madison,Wis.	Geol. gr.	Beta Theta Pi
Middleton, Joel Dugger	Phoenix, Ariz.	LD 79–6	Kappa Sigma
[1]Middleton, Lee-Roy E. A.B., Maryville, 1921	Phoenix, Ariz.	Econ. gr.	9 Cabrillo
[5]Midgley, Charles Wm., Jr.	Oakland	Econ. 165+36	Sigma Nu
[4]Millar, William Syril B.S., Utah, 1920	San Diego	Bact. gr.	111 Encina
[23]Millea, Herbert Newell	Los Angeles	LD 37–29	Phi Kappa Psi
[5]Miller, Arthur George	Whittier	Law 94+29	Univ. Heights
Miller, Barbara	Los Angeles	Engl.-Jn. 91·43+24	Delta Gamma
Miller, Charles Emerson A.B., Stanford, 1922, Engineer, 1923	Aberdeen, Wn.	E.E. gr.	334 Union
[1]Miller, Donald Howard	San Leandro	LD 13–31	Alpha Kappa Lambda
Miller, Esther Enid	Palo Alto	LD 20·38–2	1018 Forest Ct.-p
Miller, Eugene Elliott A.B., Stanford, 1923	Eagle Rock City	C.E. 70·112+23	319 Union
Miller, Fred Allen	Littlerock	LD 42+7	Alpha Kappa Lambda
Miller, Frederick H. A.B., Stanford, 1923	South Pasadena	M.E. 180+118	362 Encina
[4]Miller, Gertrude	Ferndale	LD ‡	Madroño
Miller, Harold Anderson	Aberdeen,Wn.	LD 62–3	347 Alma
Miller, Harold Eugene	Mayfield	LD 45–3	Mayfield-Box764,p
[4]Miller, Hollis DeWitt B.S., Minesota, 1913	Westwood	Sch. Ed. gr.	808 Waverley-p
Miller, Holmes Clevenger	Palo Alto	M.E. 137+88	1018 Forest Ct.-p
[4]Miller, Jean C.	Tucson, Ariz.	LD ‡	Sigma Alpha Epsilon
[5]Miller, Kingsley Roy	Beloit, Kans.	Chem. 96·54+35	123 Emerson-p
[5]Miller, Knox	Fort Worth, Tex.	Law 23·139+146	514 Encina
[5]Miller, Leland Wood	Los Angeles	Econ. 83·76+3	325 Hamilton-p
[12]Miller, Lowell Morrison	Palo Alto	Law 117+77	240 Embarcadero-p
Miller, Margaret Rebecca	SantaFe,N.M.	LD 30+1	276 Roble
[1]Miller, Ralph Selleck	Santa Cruz	LD 82–14	Phi Delta Theta
Miller, Roscoe Riehm	Los Angeles	LD 55·49+13	LaurelCourt,MP-mp

[3]Miller, S. Kathryn — Los Angeles — Hist. 156+65 — Sigma Kappa
Miller, Theodore F. — Clarkdale, Ariz. — LD 44+22 — LaurelCourt,MP-mp
Miller, Wallace Jenks — Los Angeles — Med. gr. — Delta Upsilon
A.B., Stanford, 1922
[12]Miller, Walter George — San Jose — M.E. 14·166+124 — 306 Union
A.B., Stanford, 1923
[12]Miller, William Elmer — CedarRapids,Ia. — LD 37·39+11 — 238 Encina
[12]Miller, Stanley — San Jose — C.E. 86+9 — 858 S. 8th, SJ-sj
[234]Millerd, Frederic Austin — Long Beach — Law gr. — 127 Encina
B.S., California, 1921
Millerd, Lawrence Edward — Long Beach — C.E. gr. — 406 Encina
A.B., Grinnell, 1920
Milliken, Margaret F. — Canandaigua,N.Y. — Econ. gr. — University Park
A.B., Vassar, 1922
Milliken, Sheldon Spencer — Pasadena — LD 92+34 — Alpha Kappa Lambda
Millspaugh, H. Sloane — Spokane, Wn. — Law 90·93+34 — 312 Union
A.B., Stanford, 1923
Minard, Claude Russell — Fresno — Law 180+25 — 307 Union
A.B., Stanford, 1923
[5]Miner, Nagel Thompson — Santa Cruz — LD 70+64 — 538 Cowper-p
Minner, Victor J. — Carbondale, Ill. — LD 86+147 — 331 Encina
[23]Minor, Ruby — Palo Alto — Educ. gr. — 115 Alma-p
B.S., Columbia, 1921
Minsall, Francis Edward — San Jose — Min. gr. — 450 S. 2nd, SJ-sj
A.B., Stanford, 1923
Minsky, Harold B. — Hollywood — Econ. 50·54+15 — 560 Encina
Minsky, Louis Bernard — Hollywood — Econ.-Law 46·134+36 — 562 Encina
A.B., Stanford, 1923
[23]Miron, Carlos Albert — San Francisco — LD 34+38 — 203 Encina
[5]Mirrielees, Lucia B. — Stanford Univ. — Educ. gr. — 19 Salvatierra
A.B., Stanford, 1909
[1]Mitchell, Emery Ferguson — Belvedere — Law 81·161+64 — Phi Kappa Psi
A.B., Stanford, 1923, LL.B., 1923
[234]Mitchell, Evelyn Dent — Santa Rosa — Engl. 62·43+72 — 273 Roble
[5]Mitchell, George Rankin — San Diego — Engl. 74·99+105 — 245 Oberlin,M
[5]Mitchell, Homer Irving — Los Angeles — Law gr. — Theta Delta Chi
A.B., Stanford, 1922
Mitchell, Howard Lippert — Berkeley — LD 39+21 — 105 Encina
[1]Mitchell, Richard Seton — Santa Rosa — LD 1–12 — Alexandria Hotel
Mitchell, Roberta Hasty — San Jose — LD 41·59+90 — 236 Roble
[5]Mitchell, Roma L. — Los Angeles — LD 22·46+17 — 202Washington,M-p
[234]Mixon, Hugh Clarke — Marianna, Ark. — Econ. 83·28+0 — Delta Tau Delta
[12]Mizota, George S. — Fukuoka, Japan — LD 110+141 — Japanese Club
Mode, Morris John — Dinuba — LD 92+57 — 346 Encina

Moe, Orion G.	Los Angeles	LD 130+57	83 Sequoia
[1]Moeller, Ernest Henry	El Paso, Tex.	Econ. 40·35–22	Sigma Nu
[1]Mohr, Ethel	San Francisco	LD 43+28	Kappa Kappa Gamma
[5]Mohr, Everett Kingsley A.B., Stanford, 1923	San Francisco	Educ. gr.	22 Alvarado
[5]Molseed, Robert T.	Palo Alto	LD sp. 77+116	R.R. 1, Box 28,p
Monaco, Rodolfo E. A.B., Stanford, 1922	Los Angeles	Med. gr.	1920 Post, SF-sf
[5]Monfort, Marion Strawn	Alva, Okla.	Econ. 67·106+1	19 Encina
[1]Monroe, Donald Brush	SaltLakeCity,U.	Econ. 120–12	315 Encina
[5]Monroe, Marshall William	Chula Vista	Fr. 90·86+84	235 Union
Montalban, Heracio Rosa A.B., Stanford, 1921, A.M., 1923	Iloilo, P.I.	Zool. gr.	711 Cowper-p
Montgomery, DeWitt, Jr.	Visalia	LD 37–10	60 Encina
Montgomery, Martha A.B., Stanford, 1923	New Albany, Ind.	Engl. 130·47+29	KappaKap.Gam.
Moody, Frank M. A.B., Stanford, 1923	Glendale	Econ. 135·47+42	50 Sequoia
[5]Moody, Irwin Walter	San Jose	Min. 158+129	332 Encina
Mooney, Theodore Davis	St. Helena	LD 84·28+14	417 Channing-p
[23]Moore, Arthur	Stanford Univ.	LD 119+30	Phi Kappa Sigma
Moore, Catherine America A.B., Stanford, 1922, A.M., 1923	Palo Alto	Sch. Ed. gr.	329 Hawthorne-p
[1]Moore, Claude W. A.B., Stanford, 1923	Proberta	Hist. 43·138+94	555 Encina
Moore, Edwin C. A.B., Stanford, 1923	Stanford Univ.	C.E. 107·93+11	319 Union
Moore, Jack Beals	Fresno	Pre-Med.90·45+55	634Hamilton-p
Moore, Robert Marion	San Jose	LD 96+40	57 Magnolia, SJ-sj
[1]Mooty, Hattie Elizabeth	Stockton	LD 36–9	117 Roble
[234]Moretti, Louis Ramon	Mill Valley	Geol. 135·31+21	115 Alma
[2]Mori,MasatoshiGensen	Yokkaichi,Japan	LD sp. 8+7	335 Everett
Morrill, Leonore Esther	Sacramento	LD 44+16	333 Roble
[23]Morris, Albert Ferdinand A.B., Oklahoma, 1918	Tulsa, Okla.	Geol. gr.	211 Melville
Morris, Cecil Martin	Billings, Mont.	Econ. 125+23	Alpha Sigma Phi
Morris, Harold	Oxnard	LD 107+5	43 Encina
Morris, John Knox, Jr. A.B., Stanford, 1921	San Francisco	Med. gr.	2202 Calif., SF-sf
[4]Morris, Ruth Lilian	San Francisco	Psych. 33·141+64	224 Roble
Morrison, Abram Mitchell	Hollywood	LD 39–2	Laurel Court, MP-mp
Morrison, Deming W.	Wheatland,Wyo.	LD 86+38	69 Sequoia
Morrison, Erwin Gorham	San Francisco	LD 33–10	Delta Tau Delta

[12]Morrison, Marcus F.	Palo Alto	Law ‡ 69–13	835 Lytton-p
[4]Morrison, May Helena A.B., Colorado, 1909	Portland, Ore.	Sch. Ed. gr.	321 Kipling-p
Morrison, Roland J. A.B., Stanford, 1923	Santa Clara	Econ. 183+48	1196 Main, SC-sc
Mors, George L.	Palo Alto	M.E. 163+79	1020 Ramona-p
Mortimer, Wendell Reed A.B., Stanford, 1923	Palo Alto	Econ. 186+124	344 Tennyson-p
[4]Morton, Lucie Wellington	Palo Alto	Engl. gr.	1730 Middlefield-p
[4]Morton, Maralyn B. A.B., Brigham Young, 1919; A.M., Chicago, 1921	Pleasant Grove,U.	Engl. gr.	257 Roble
[3]Morton, Marcia Ellsworth	Los Angeles	LD 14+28	376 Roble
[23]Mortsolf, Kenneth J.	Hoopa	LD 31+7	Delta Upsilon
[5]Mosher, Albert A.B., Stanford, 1923	Rawlins, Wyo.	Law gr.	Sigma Alpha Epsilon
[4]Mosher, Raymond M. A.B., Stanford, 1919, A.M., 1923	Santa Barbara	Educ. gr.	189 S. 11th, SJ-sj
Motheral, J. Graeme	Hanford	LD 42+42	Alpha Tau Omega
Moule, Richard Harding	Palo Alto	LD 39+3	610 Melville-p
[234]Moulton, Florence Ellen B.A., College of the Sacred Heart, 1922	Menlo Park	Cl. Lit. gr.	Conv.Sac.Ht.,MP-mp
Mowers, Delbert Austin	Vacaville	LD 42+7	Kappa Alpha
[3]Moy, Bing	Stanford Univ.	LD ‡ 11+3	County Road
Mueller, Albert Venlow A.B., Stanford, 1921, J.D., 1923	Lincoln	Law gr.	42 Encina
Muhs, Fred Ross, Jr.	Berkeley	LD 48+62	105 Encina
Muir, James Creighton	Wilbur, Wn.	LD 11·100+166	Phi Gamma Delta
Mulchay, Roland Bernard	Portland,Ore.	LD 94+153	Theta Xi
[12]Mulford, Oscar Wayne	Los Angeles	LD 62+3	Delta Chi
Mullender, Joseph Doble	Puente	LD 35–6	Phi Gamma Delta
[12]Muller, Dorothy	Oxnard	LD 71+0	Chi Omega
[5]Muller, Edward Pierre	San Francisco	LD 90+11	129 Encina
[5]Mulryan, Henry	Beresford	Geol. 169+163	Theta Chi
Mumford, Patrick Foster	Menlo Park	M.E. 149+132	Menlo Park-mp
[1]Munroe, Frank Gordon	Los Angeles	LD 43–32	50 Sequoia
Munson, Spencer Munroe, Jr.	Pasadena	C.E. 95·48+66	8 Dolores
Murata, Thomas Tomio	San Francisco	LD 115+145	Japanese Club
Murdoch, Christine A.B., Stanford, 1923	Klamath Falls, Ore.	Law 181+161	348 Roble
[4]Murphey, William Luther A.B., Arizona, 1923	Tucson, Ariz.	Law gr.	Sigma Alpha Epsilon
[5]Murphy, Frank L. A.B., St. Francis Xavier, 1916; Ph.B., Ottawa, 1915	Stanford Univ.	Law gr.	533 Encina

Murphy, John Andrew	Salinas	LD 44–10	Phi Gamma Delta
[5]Murphy, John Matthew, Jr.	Petaluma	Pre-Clin. 105·44+19	118 Encina
Murphy, Paul John	Salida	LD 44–19	113 Encina
Murphy, Ramund R.	San Francisco	LD 64+14	Sigma Nu
[1]Murphy, Russell Nichols	Burlingame	LD 52+16	Sigma Chi
Murphy, William H.	Redwood City	Med. gr.	237 Brewster, RC-rc
A.B., Stanford, 1920			
[5]Murray, Oscar Raymond	Los Gatos	Econ.sp.5·5+21	264Sar'tga,LG-lg
[1]Murray, Paul Chaney	Lodi	Geol. 21·164+74	Sigma Nu
[1]Muscio, Neva Evelyn	Burlingame	Econ. 99·85+37	Alpha Phi
A.B., Stanford, 1923			
Muzzey, Isabelle G.	Pasadena	Econ. 18·124+108	162 Roble
Myers, Alice Elizabeth	Berkeley	LD 53·43+22	175 Roble
Myers, Burton A.	San Francisco	Med. gr.	S. F. Hosp., SF-sf
A.B., Kansas, 1919			
Myers, Edwin F.	Portland, Ore.	C.E. 181+197	559 Encina
A.B., Stanford, 1923			
Myers, Lyttleton Emery	Glendale	LD 73+5	50 Sequoia
Myers, Ralph Leo	Jackson	LD 29+12	449 Encina
Myers, Robert Pearce	Long Beach	LD 86+63	Phi Kappa Psi
Nanninga, Simon Peter	Palo Alto	Educ. gr.	Box 667,p
B.S., Kansas State Normal, 1916; A.M., Stanford, 1919			
[5]Nash, Alfred Warren	Oakland	Geol. 179+103	561 Encina
Nauman, J. Patrice	San Francisco	LD 39+7	342 Roble
[12]Nave, Charles Olney	Kissimmee, Fla.	Geol. 121+22	9 Sequoia
[14]Nay, Dorothy Louise	Pasadena	Ed.G.A.91·85+25	Kap.AlphaTheta
[4]Naylor, Blanche	San Diego	Educ. ‡ 27+37	Roble
Neal, Finley Farrand	Palo Alto	Phys. gr.	468 Channing-p
B.S., Washburn College, 1919; A.M., Stanford, 1923			
[3]Neer, Phil F.	Portland, Ore.	Econ.-Law 156–2	AlphaDeltaPhi
[12]Nef, Kenneth Dunlap	Palo Alto	M.E. 77·161+40	347 Alma-p
A.B., Stanford, 1923			
Neff, Harold Arthur	Palo Alto	LD 48+26	908 Boyce-p
Neikirk, John Herchel	Palo Alto	LD 33–20	1357 Cowper-p
[12]Neill, Clayton B.	Denair	C.E. gr.	Alpha Tau Omega
A.B., Stanford, 1923			
Neill, William C., Jr.	Santa Monica	LD 99+7	Phi Kappa Sigma
[23]Neisser, Edward	Venice	LD 25–4	402 Encina
Nelson, Albert	Eureka	Pol. S. 115+108	207 Encina
Nelson, Elmer John	Clovis	C.E. 110+74	Alpha Tau Omega
Nelson, Frithjof William	Palo Alto	Min. gr.	750 Channing-p
A.B., Stanford, 1922			
[23]Nelson, Helen Elizabeth	Redlands	Hist. 100·81+74	107 Roble
A.B., Stanford, 1923			

Nelson, Helen Eugenia	San Jose	LD 40+55	246 Roble
[4]Nelson, Norman Ralph	Palo Alto	LD sp.	750 Channing-p
Nelson, Roy Frank A.B., Knox, 1919	San Francisco	Med. gr.	2321 Sac'to, SF-sf
Nelson, William Kenneth	Santa Ana	LD 45·98+124	348Encina-Bx765,p
Nesbit, Reed Miller A.B., Stanford, 1921	San Francisco	Med. gr.	1920 Post, SF-sf
[4]Nethercut, Katharine	Lake Geneva, Wis.	LD ‡	Roble
Nethercut, Ruth Allen A.B., Stanford, 1919	Lake Geneva, Wis.	Med. gr.	355 Kellogg-p
Neuman, Adolph	Pasco, Wn.	Econ. 137+40	326 Encina
Neuman, Arthur A.B., Stanford, 1923	Turlock	Pol. S.-Jn.90·91+93	WWS,MP-mp
Nevers, Ernest	Santa Rosa	LD 37–14	Kappa Alpha
Nevins, Arthur Garth	Clovis	LD 45+20	81 Sequoia
[12]Nevins, Edward Clayton	Los Angeles	LD 24+4	87 Sequoia
Newbauer, Jerome Paul	San Francisco	LD 93+62	23 Encina
Newcomer, Mary Adele	Phoenix, Ariz.	Math. 112·50+29	172 Roble
Newell, George Lina	Palo Alto	Educ. 90·42+29	431 Channing-p
Newill, Philip	Portland, Ore.	Engl. 129+112	428 Encina
Newland, Alva Adams	Los Angeles	LD 21–13	Kappa Sigma
[124]Newlin, Carl Allen	Hutsonville, Ill.	Econ. 46·131+49	Phi Kappa Psi
Newlin, Ruth Anne	Fresno	Chem. 149+170	112 Roble
Newlove, Marlin E.	Santa Monica	LD 42+37	206 Encina
Newman, William, Jr. A.B., Stanford, 1921	Fresno	Med. gr.	528 Encina
Newnan, Gladys	Mountain View	Bact. 151+204	MountainView-mv
[23]Newsom, John Branner A.B., Stanford, 1922	Palo Alto	Min. gr.	1129 Cowper-p
[5]Newton, Glenn DeWitt	Palo Alto	Law 123+60	1005 University
[1]Nicholas, Howard Lloyd A.B., Stanford, 1923	Palo Alto	Law 135·46+34	627 Emerson-p
[5]Nicholas, Warren Whittier A.B., Stanford, 1923	Palo Alto	Phys. gr.	458 Channing-p
[4]Nicholas, Joseph Kelly A.B., Brigham Young, 1916	St. George, U.	Chem. gr.	465 Hamilton-p
Nichols, Frank Culver	Hollywood	LD 47+59	126 Encina
Nichols, Howard Bowman A.B., Stanford, 1923	San Jose	C.E. 77·105+93	202 S. 11th, SJ-sj
Nichols, Winifred Barton	Pasadena	LD 43+12	355 Roble
[12]Nicholson, Harold Buxton A.B., Stanford, 1923	Long Beach	Econ. 51·129+96	Beta Theta Pi
[12]Nicholson,RobertLeRoy	TwinFalls,Ida.	LD 30+12	105 Encina

Niebergall, Herbert A.	Vancouver,B.C.	Pre-Clin. 180+89	416 Encina
A.B., Stanford, 1923			
Nielson, Adonis Haight	Oakley, Ida.	Law 107·91+59	236 Encina
A.B., Stanford, 1923			
Niemann, Christian W.	San Francisco	LD 70+45	349 Encina
[3]Nittler, Rudolph	Oakland	LD 13+1	Convalescent Home
[5]Noble, Burton Avery	San Francisco	Chem. 94+48	351 Encina
[5]Nolan, Lloyd Benedict	San Francisco	LD 29–16	Delta Kappa Epsilon
Noland, Harry Leslie	Saguache, Colo.	LD 84+0	41 Encina
Norberg, Raymond William	Pasadena	LD 94+55	415 Encina
Norris, Paul Edison	Fullerton, Neb.	LD 66·100+46	224 Encina
North, Agnes Martha	Stanford Univ.	Cl. Lit. 90·93+62	Kingscote
A.B., Stanford, 1923			
[4]North, Harry S.	Tucson, Ariz.	LD ‡	329 Hawthorne-p
Northway, William H., Jr.	Hughson	LD 46+59	81 Sequoia
[4]Norton, Oliver Edward	San Jose	Pol. S. gr.	755 Emory, SJ-sj
A.B., College of the Pacific, 1921			
[1]Norwood, Julius Lane	Los Angeles	Econ. 135·64+42	936 Waverley-p
A.B., Stanford, 1923			
Nourse, Barbara E.	San Francisco	LD 35+1	311 Roble
Nowell, George Madison	Palo Alto	Law gr.	305 Cowper-p
A.B., Stanford, 1923			
Nowell, Nelson Taplin	Stanford Univ.	Econ. 157+33	Theta Delta Chi
Noyes, Elizabeth	Oakland	Fr. 47·133+208	Delta Delta Delta
A.B., Stanford, 1923			
Nunn, Marshall E.	ColoradoSp'gs,Colo.	Span. 85·48+15	303 Encina
Nye, Ralph	Ogden, Utah	LD 45+48	Phi Kappa Psi
Oatman, Homer C., Jr.	San Diego	LD 35–10	Zeta Psi
Oberg, Henry Leland	Palo Alto	Econ. gr.	627 Bryant-p
A.B., Stanford, 1923			
[4]O'Brien, Elizabeth M.	Mare Island	LD sp.	180 Roble
[12]O'Carroll, Harry James	San Jose	LD ‡ 24–13	56 S. 3d, SJ-sj
[23]O'Connor, James Wallace	Venice	LD 24–10	Phi Delta Theta
[2]O'Connor, Roger Aloysius	San Mateo	LDsp.19+1	636Hurlingh'm,SM-sm
Odemar, Walter Henry	Los Angeles	LD 45+10	230 Encina
[3]O'Donnell, Stephen F.	Los Angeles	LD 10+0	9 Sequoia
[3]Off, Howard Jerome	Los Angeles	LD 22–32	25 Salvatierra
[1]Off, Theodore Roosevelt	Los Angeles	LD 62–7	Delta Kappa Epsilon
[23]Ogden, Lionel Edward, Jr.	SantaMonica	LD 21–8	Delta Kappa Epsilon
O'Hara, Francis Paul	San Diego	Pre-Med.46·106+70	PhiDeltaTheta
O'Hara, Joseph Jerome	San Diego	LD 50·82–14	Phi Delta Theta
[1]Ohasapian, Aram Arthur	Clovis	LD 62+7	200 Encina
Olds, Walter Keogh	San Francisco	LD 39–21	Delta Tau Delta

[4]O'Laughlin, John Richard	Madison, Wis.	Hist. 35+8	318 New Union
[34]O'Leary, Joseph Arthur	Palo Alto	LD sp. 12+6	667 Hamilton-p
Oliva, David Melvin	San Francisco	Law 104+98	410 Encina
[234]Oliver, Harriet Elizabeth	Los Altos	LD 31+32	352 Roble
[234]Olmsted, William Pitkin	Los Angeles	Geol. 146+24	Delta Upsilon
[5]Olsen, Daniel Minter	Palo Alto	LD 96+72	321 Fulton-p
Olsen, Evelyn Petrene	Mountain View	Ed. G.A. gr.	Box 276, MV-mv
A.B., Stanford, 1922, A.M., 1923			
[28]O'Neil, Maud Elwyn	Mountain View	Engl. 135·20+20	355 Palo Alto, MV
O'Neill, Francis Ignatius	San Francisco	Chem. 65·97+85	201 Encina
[4]Opgenorth, Olive C.	Tacoma, Wn.	Hist. gr.	226 Roble
A.B., Wisconsin, 1916			
Orr, Paul Wright	Modesto	LD 97+39	110 Encina
[4]Orme, Lindley Henry	Phoenix, Ariz.	Law gr.	616 Forest-p
A.B., Arizona, 1923			
[5]Osgood, Clara Louise	Parsons, Kans.	Hist. gr.	Delta Delta Delta
A.B., Kansas, 1912			
Otis, Webster Bailey	Los Angeles	LD 45+8	406 Encina
Overacker, Horace Emerson	St. Helena	E.E. gr.	334 Union
A.B., Stanford, 1922, Engineer, 1923			
[5]Overfelt, Charles Harold	San Jose	Econ.-Law 98+132	24 Sequoia
[5]Overfelt, Dorothy Louise	San Jose	Econ. 133+94	Delta Delta Delta
Overturf, Jesse Ray	College View, Neb.	Educ. gr.	341 Columbia, M
A.B., Nebraska, 1920; A.M., Stanford, 1923			
Oviatt, Gilbert Tod	Santa Barbara	LD 42+4	Phi Delta Theta
[4]Owen, Jeffie Louise	Morenci, Ariz.	Engl. gr.	202 Roble
A.B., Stanford, 1921			
[3]Owens, E. Preston	Aetna Springs	LD 10+3	1035 Bryant-p
[4]Owens, Kathaleen Helen	Willsboro, N.Y.	Educ. gr.	246 Roble
A.B., Syracuse, 1923			
Page, Benjamin H.	San Mateo	Med. gr.	225 Minnie, SM-sm
A.B., Stanford, 1922			
[4]Paige, Frank Eaton	Tucson, Ariz.	LD sp.	39 Encina
Paine, Willard D.	Saratoga Springs, N.Y.	LD 85–2	321 Encina
[5]Pallette, Edward Choate	Los Angeles	LD 72+5	Beta Theta Pi
[4]Pallette, Warren S.	Los Angeles	LD	302 Union
Palmer, Burton White	San Jose	Econ. 131+70	435 Encina
Palmer, Mary Jessie	Minneapolis, Minn.	Hist. gr.	Madroño
A.B., Minnesota, 1912			
Panchuk, John	Detroit, Mich.	LD 45+61	136 Encina
[1]Papazian, Robert Aram	Fresno	Econ. 41+7	Base Hospital-p
[2]Pardi, George Henry	Vacaville	LD 7–13	126 Encina
Pareja, Leandro	Cuzco, Peru	Chem. gr.	909 Alma-p
Curco University, 1913			

Paris, Claude H.	San Francisco	LD 74–3	416 Encina
[23]Parish, John Thomas A.B., Stanford, 1923	Twin Falls, Ida.	Econ. 100·85+8	317 Encina
Park, Harold Raymond	Spokane, Wn.	LD 133+134	530 Emerson-p
Parker, Elizabeth	Baker, Ore.	LD 95+48	217 Roble
Parker, Melvin Francis A.B., Stanford, 1923	Oakland	Econ. 18·164+19	Sigma Chi
[1]Parker, Richard Allyn	Palo Alto	LD 26–20	115 Alma-p
Parkhurst, Angie Helen	San Mateo	LD ‡ 71–14	Delta Gamma
Parks, Charles Helmer	Cody, Wyo.	LD 98+24	Phi Kappa Psi
Parks, Ernest Kempe	Palo Alto	Min. 55·88+95	170 Lowell-p
[4]Parks, Grace M. A.B., Washington, 1917	Palo Alto	Educ. gr.	151 Waverley-p
[5]Parlier, Lillian	Fresno	Span. 135+54	Kingscote
[13]Parsons, William Henry	Santa Cruz	LD 23+0	Delta Tau Delta
Partridge, Ruth Elizabeth	Palo Alto	LD 61+60	177 Everett-p
Pash, Madeline Florence A.B., California, 1919; A.M., Stanford, 1923	Saratoga	Math. gr.	Madroño
Pasquale, Yvonne A.	San Francisco	Fr. 135+178	KappaKappaGamma
Pastorius, Horace E., Jr.	Redlands	LD 46+12	Alpha Sigma Phi
[23]Patacsil, Anselmo Garcia	Munoz, P.I.	LD 60+14	711 Cowper-p
[5]Patacsil, Gregorio C.	Stanford Univ.	Pol. S.-Law 152+27	14 Alvarado
[5]Patek, Sadie Dernham A.B., Stanford, 1923	San Francisco	Pre-Med. gr.	Kingscote
[2]Paterson, Douglas D.	San Jose	LD 38–11	Encina
[12]Patrick, Gladys Valdio	Palo Alto	LD ‡ 49–19	305 Lytton-p
[23]Patrick, Lillie Marguerite	Palo Alto	LD 27–17	305 Lytton-p
Patterson, Allen A. A.B., Stanford, 1922	Santa Maria	Chem. gr.	554 Encina
Patterson, Edwin Alexander	Oakland	Pre-Clin.15·156+26	PhiKappaPsi
[5]Patterson, George W. A.B., Mississippi, 1920	Houlka, Miss.	Educ. gr.	243 Webster-p
Patterson, Harold Holmes	Hollywood	Engl. 130·44+4	LaurelC't,MP-mp
[5]Patterson, Homer William	Richmond	Law 11·181+191	207 Union
Patterson, Robert Darl	Santa Maria	LD 42·47+58	408 Encina
Patterson, William Weber A.B., Stanford, 1923	Portland,Ore.	Econ. 47·139+63	Sigma Chi
Pattison, Martin	Los Angeles	LD 40–13	Phi Kappa Psi
Patton, Alfred Talbot	Berkeley	LD 138+107	221 Encina
[5]Patton, Robert Taylor A.B., Stanford, 1923	Spokane, Wn.	Law gr.	Alpha Delta Phi
Paulsen, Catherine M.	Palo Alto	LD 10·91+50	602 Waverley-p
Paulsen, Helen Carolyn A.B., Stanford, 1923	Palo Alto	Ed. G.A. 181+72	602 Waverley-p

[4]Paxton, Jessie K. Fresno Engl. gr. 215 Churchill-p
A.B., Stanford, 1919, A.M., 1921

[4]Paxton, Margaret Fresno Sch. Ed. gr. 215 Churchill-p
A.B., Fresno State Teachers' College, 1923

Payne, Helen Elizabeth San Francisco Hist. gr. 251 Roble
A.B., Stanford, 1923

[5]Payne, Ira Dawson Tempe, Ariz. Educ. gr. 1210 Palo Alto,M
A.B., Stanford, 1911, A.M., 1923

Pearce, George Call Redwood City LD 149+166 249 Encina

Pearce, Mercedes Redwood City LD 107+35 245 Roble

[34]Pearson, Harrell B. Calgary, Can. LD 6–9 22 Sequoia

[4]Pearson, Leo Earl Palo Alto Ed. G.A. 36+15 334 Waverley-p

Pearson,RussellAlderson StanfordUniv. Chem. gr. 543 Encina
A.B., Stanford, 1923

[5]Pease, Howard Stockton Hist. 32·108+41 210 Union

[5]Peavy, Claude Edw. Huntington Beach M.E. 169+36 335 Encina

Peck, Alice Hawley Hollywood LD 51+1 Gamma Phi Beta

[14]Peckham, Doyle Starr Watsonville Engl. gr. 527 Encina
A.B., Stanford, 1923

[5]Peery, David Harold Porterville LD 91–8 Delta Upsilon

Peery, Elmer Joseph Corcoran LD 47–12 446 Encina

[3]Pegram, Reginald Byrne Los Angeles LD 16–4 64 Sequoia

Peirce, Carolyn Palo Alto LD 73+114 281 Embarcadero-p

Peirce, Elizabeth Palo Alto Bot. 143+124 281 Embarcadero-p

[5]Peirce,Lovell Haskins GrandJunc.,Colo. Chem. gr. 213 Union
A.B., Colorado, 1920

Penepacker, Frank M. Hoquiam, Wn. LD 89+26 308 Encina

[2]Penfield, Douglas Lathrope Coalinga Pre-Med. 84·38+5 636 Gilman-p

[1]Pennington, Thomas Belmont Chem. 42·104+23

Penwell, Lewis Fred Helena, Mont. Econ. 181+43 34 Sequoia
A.B., Stanford, 1923

Pepys, Frederick C. San Diego LD 45+10 751 Webster-p

Perham, Don DeBlois Palo Alto Educ. 11·113+48 335 Melville-p

[12]Pering, Alfred V. Palo Alto LD 26+4 668 Forest-p

Peter, Leslie Harber, Jr. Oakland LD 89+102 Alpha Kappa Lambda

Petersen, Jennie Marie Richfield, Utah. LD 91+58 148 Roble

Peterson, Algot Julius Kingsburg Econ.-Law 181+250 248 Encina
A.B., Stanford, 1923

[34]Peterson, Arthur G. San Diego Educ. gr. 1111 Middlefield
A.B., College of the Pacific, 1912

Peterson, Everett Miller Payette, Idaho LD 48+3 345 Encina

Peterson, Harold Logan, Utah Min. gr. 429 Forest-p
B.S., Utah Agricultural College, 1917

[34]Peterson, Peter Victor — San Jose — Chem. gr. — 635 N. 1st, SJ-sj
A.B., Iowa State Teachers College, 1917

Petray, Marian Shirley — Oakland — Engl. 68·114+43 — Sigma Kappa
A.B., Stanford, 1923

[5]Pettibone, Gilbert Wm. — Stanford Univ. — LD sp. 5·73+5 — 210 Encina

[4]Pfander, Homer Garrison — San Rafael — Engl. gr. — 25 Salvatierra
B.A., Lake Forest, 1917

[4]Pfister, Louise E. — Selma — Engl. gr. — Roble
A.B., California, 1920

Phelps, Earlene — Phoenix, Ariz. — Engl. 129+58 — Alpha Omicron Pi

Phelps, John Edmund, Jr. — Los Angeles — Econ. 145–1 — Alpha Tau Omega

[1]Pheney, William DeJarld — Durango, Colo. — Geol. 39·71–5 — Beta Theta Pi

[4]Phillips, LaForest E. — Palo Alto — LD 48–32 — 337 Hamilton-p

[1]Phillips, Merrill Newman — La Habra — Geol. 135·66+51 — 214 Union
A.B., Stanford, 1923

[5]Phinney, Alfred Earl — Kansas City, Mo. — Econ. 153+130 — Kappa Alpha

[12]Phyfer, L. Fontaine — New Albany, Miss. — Law gr. — 115 Everett-p
A.B., Stanford, 1922

[12]Piedmonte, Adolph Louis — Turlock — Pre-Med. 30·67+38 — 282 Univ.-p

Pierce, Dorothy Duncan — Fullerton — Sch. Ed. gr. — 116 Roble
A.B., Stanford, 1922

Pierce, Leo Francis — Los Altos — Chem. gr. — Los Altos-Box 733-p
M.S., Tulane, 1921; Ph.D., Stanford, 1923

Pigott, C. Montagu deR. — Los Gatos — Min. 11·122+87 — 109 Foster, LG-lg

[5]Pigott, Paul Richard — Seattle, Wn. — Min. 172+24 — Phi Delta Theta

Pihl, Martin Almond — Mountain View — LD 45–31 — Box 601, MV-mv

Ping, Er-Chang — Hunan, China — LD 85·31+0 — Chinese Club

[23]Pitts, Dorothy Sara — Long Beach — LD 69·28+3 — 200 Roble

Pixley, Florence Adeline — Orange — Engl. 180+68 — Alpha Omicron Pi
A.B., Stanford, 1923

[4]Platts, John Milton — Fresno — Educ. gr. — 342 Homer-p
B.S., Rose Polytechnic Institute, 1899

Pleasants, Frances — Nampa, Idaho — Hist. 39·96+45 — Alpha Phi

Plimpton, John Edward — Stanford Univ. — Econ. 111+21 — 124 Encina

Poco, Alfrida F. C. — Reno, Nev. — LD 44+44 — 237 Roble

[5]Podesta, Loyal James — San Francisco — Econ. 154+16 — 410 Encina

Polland, W. Scott — Sacramento — LD 82+121 — Sigma Alpha Epsilon

[5]Pollard, Glenn Eugene — Spokane, Wn. — Min. 167+56 — Alpha Delta Phi

[3]Polley, Rudolph Arthur — Ojai — LD 54·13+17 — 121 Encina

[3]Pollock, Dorotha — Berkeley — LD 67·15+8 — 312 Roble

Pollock, Wayne Evans — Clarksburg — Pre-Med. 95·47+40 — 408 Encina

[12]Polse, Max L. — San Francisco — Med. gr. — 483 Channing-p
A.B., Stanford, 1923

Poncelet, Eugene F. M. Liege, Belgium Min. gr. 327 Union
Government University of Liege, 1922
Pond, Frederick Raleigh Napa Engl. 21·178+240 250 Encina
[12]Pond, Perry Staples Redwood City LD 17–24 Alpha Sigma Phi
Poole, John Hammerson Redwood City Hist.105+13 248 Washington,RC-rc
Pooler, Elizabeth Frances San Francisco Hist.90·52+85 170 Roble
Pope, Charles St. George Sacramento LD 49+20 Chi Psi
Pope, Willard Bissell Detroit, Mich. LD 78+1 Chi Psi
Poppic, Clara Palo Alto Chem. gr. 344 Middlefield-p
B.S., Massachusetts Institute of Technology, 1919; A.M., Stanford, 1923
[23]Porter, Dorothy Frances Fresno Bact. 110·27+6 206 Roble
[1]Porter,HowardImmaunel SanFrancisco LDsp.8·42+23 619 Frederick,SF-sf
Porter, Virginia T. Enid, Okla. Sch. Ed. gr. 310 Waverley-p
A.B., Oberlin, 1922
Porterfield, Robert Ramey SantaMonica LD 95+59 Theta Xi
Post, Alexis Everett Berkeley M.E. 129·45+21 Zeta Psi
[23]Postlewaite, Mark A. SanAntonio,Tex. M.E. 70·78–12 Theta Xi
Postlewaite,WilliamR. SanAntonio,Tex. LD 116+44 Theta Xi
Potter, Marion Bucklin Riverside Sch. Ed. gr. Pi Beta Phi
A.B., Stanford, 1922
Potts, Frederick Ernest Los Angeles LD 49+12 434 Encina
Pouppirt, Pearl Sylva Palo Alto Med. gr. 1875 Sac'to, SF-sf
A.B., Stanford, 1921
[2-4]Powell, Califern Sebastopol Sch. Ed. gr. Madroño
A.B., Mills, 1922
Powell, George Townsend So. Pasadena Hist. 158+13 Kappa Sigma
Power,Clifford H. Ensenada, Low. Cal. LD 62–22 Theta Chi
Powers, Herbert William Pacific Grove LD 47+44 310 Encina
Pratt, Laurence F. No.Weymouth,Mass. Chem. gr. 400 Webster-p
B.S., Massachusetts Agricultural College, 1921
[1]Pratt, Sylvester Burdette Pasco, Wn. LD 22–21 535 Byron-p
Preston, Harold Orum Pacific Grove Law 181+95 64 Sequoia
A.B., Stanford, 1923
[1]Preston, William C., Jr. NewYork,N.Y. Law ‡0–15 LaurelCourt,MP-mp
[4]Price, Edwin Pasadena Educ. gr. 525 Forest
A.B., Southern California, 1922
Price, Frances Irene Palo Alto Engl. gr. 550 Embarcadero-p
A.B., Mills, 1922; A.M., Stanford, 1923
Price, H. Bertrand, Jr. Philadelphia, Pa. LD 88+1 228 Encina
Price, Joseph Pressly Oakland M.E. 141+13 502 Encina
Price, Laura Specht Los Angeles Educ. gr. Madroño
B.S., Minnesota, 1922; A.M., Stanford, 1923
Price, Leslie Wilson Bouse, Ariz. Econ. 43·95+75 226 Encina

[5]Prior, Charles Henry	Sheffield, Ill.	Engl.-Jn. 166+97	32 Sequoia
Prior, Joseph Clifford	Sheffield, Ill.	Econ.-Law 165+209	32 Sequoia
[2]Prior, Leland S., Jr.	Menlo Park	LD 53–21	R.D. 149, MP-mp
[4]Pritchard, Marion S.	San Francisco	Econ. ‡ 38–8	354 Roble
[12]Proctor, Alden Alexander	Palo Alto	LD 26–12	433 Melville-p
[12]Proctor, Phimister Bayard	Palo Alto	LD 56+14	433 Melville-p
[1]Proctor, Ruth Whitaker	Palo Alto	Fr. 128+70	433 Melville-p
Provine, George T.	McKinney, Texas	Hist.-Jn. 90·93+39	545 Bryant-p
A.B., Stanford, 1923			
[34]Pryor, Roy Jay	Menlo Park	Educ. gr.	W.W.Sch., MP-mp
A.B., Stanford, 1921			
Pulliam, Ernest Gordon	Cushing, Okla.	Econ. 135·45+15	328 Union
A.B., Stanford, 1923			
Purnell, George Roberts	Sacramento	LD 43+21	555 Waverley
[5]Purviance, Charles Emmet	Palo Alto	Educ. gr.	236 Seale-p
B.L., California, 1914			
Purvis, Ralph Clarke	Tipton, Ind.	Econ. 49·131+5	660 Waverley-p
A.B., Stanford, 1923			
[5]Putcamp, William J.	Carbondale, Ill.	LD 31·96+12	320 Union
Putnam, Cecil Monroe	Alameda	Law 185+87	Sigma Nu
A.B., Stanford, 1923			
[23]Quagelli, Henry Joseph	San Francisco	LD 23·66+27	Sigma Nu
[4]Quayle, Ernest Harrison	University Park	Bot. 24·97+93	Lobata Lodge
Queen, Hallie E.	Aguadilla, Porto Rico	Span. gr.	6 Alvarado
B.S., Cornell, 1908; A.M., Stanford, 1923			
Quigley, John Scott	Alameda	LD 91+8	Sigma Alpha Epsilon
Quinn, John	Big Spring, Texas	LD 11·49+74	315 Encina
[12]Quinn, Mildred Ruth	Hollywood	Econ. gr.	Delta Gamma
A.B., Stanford, 1923			
Quinn, Thomas Brennan	Stockton	LD 27–3	Sigma Nu
[2]Quintero, Baldwin P.	Santa Barbara	LD sp. 6·55+3	Delta Chi
Quirmbach, Robert Paul	Needles	Pre-Med. 108+47	232 Encina
[4]Rachford, Maude E.	Alturas	LD ‡	415 Lytton-p
Rackliff, Luella Marie	Hollister	Math. 90·49+57	184 Roble
Radcliffe, Thomas D.	Stanford Univ.	Min. gr.	547 Encina
A.B., Stanford, 1920			
[12]Raddatz, Harold Emil	SaltLakeCity,U.	LD 13–5	404 Encina
[1]Raicevich, Louis Earl	Healdsburg	LD	427 Encina
Railsback, Oscar C.	Hanford	Phyl.-Med. 100·85+56	Sigma Nu
A.B., Stanford, 1923			
Ramey, Earl	Palmdale	LD 118+149	17 Alvarado
[12]Randolph, Howard Edwin	Gridley	LD 25+0	1020 Ramona
[4]Rankin, Wallace Edmunds	Glen Ellen	Hist. gr.	43 Encina
A.B., Stanford, 1922			

Rask, Olaf Selmer B.A., Minnesota, 1916, B.S., 1917	Kalispell, Mont.	Chem. gr.	564 University
[5]Rasmussen, Elmer Christian	San Jose	Econ. 75–5	1060 Alameda,SJ-sj
Ratzell, Florence Irene	Turlock	Pre-N. 71·65+57	208 Roble
[23]Ratzell, Pauline May A.B., Stanford, 1923	Turlock	Span. 95·90+59	210 Roble
[27]Rawhauser, John Gambell	Willows	C.E. 133+136	204 Encina
Rawlins, Aubrey Gatliff	Willows	Med. gr.	Y. M.C.A., SF-sf
[23]Rawlins, George H. A.B., Stanford, 1923	Globe, Ariz.	Law 103·88+0	306 Union
[4]Raymond, Natalie Margaret	Pasadena	Psych. ‡	239 Roble
Read, Grace Fletcher	Oakland	LD 45·44+48	103 Roble
[1]Reade, Arthur Cole	Denver, Colo.	M.E. ‡ 25–31	Alpha Sigma Phi
[23]Reagan, Albert B. A.M., Indiana, 1904	Cornfield, Ariz.	Geol. gr.	627 Gilman-p
Rear, James Carleton	Vancouver, B. C.	M.E. 90·51+14	Laurel Ct.,MP-mp
Reavis, James Ogden	Bakersfield	Law 183+158	Cooksey Lane
Redeker, Ivan Monroe A.B., Stanford, 1923	Palo Alto	M.E. 185+124	228 Union
[5]Reed, Myron Nelson	Portland, Ore.	Econ. 142+20	Beta Theta Pi
[23]Reed, Ralph Daniel B.S., Hiram, 1913	Palo Alto	Geol. gr.	154 Laurel
[24]Rees, Jack C.	Long Pine	LD 34–20	Zeta Psi
[4]Rees, Jenkins Bennett A.B., Lombard, 1903	Palo Alto	Educ. gr.	635 Homer-p
[23]Reese, Lewis, Jr.	Modesto	LD 123+26	250 Encina
Reeves, David Lander	SaltLakeCity,U.	LD 45+0	Chi Psi
Rehfuss, Carl William A.B., Stanford, 1922; Engineer, 1923	Salem, Ore.	Chem. gr.	318 Encina
[5]Reichmuth, Anton L.	San Francisco	LD 73–15	121 Encina
[23]Reid, Katharine A.B., Stanford, 1923	Los Angeles	Econ. gr.	Delta Gamma
Reinemund, Byron Russell	San Diego	Engl. 33·78+26	11 Sequoia
Reinoehl, Donald Earl	Fresno	LD 24–12	Lobata Lodge
[23]Reiss, Malcolm Blum	San Francisco	LD 32+14	409 Encina
Relph, Harold Edward	San Jose	LD 87–5	115 Sierra, SJ-sj
[124]Rendtorff, Gertrude E.	Stanford Univ.	LD 44+16	30 Alvarado
[5]Repass, Merle Marion A.B., Stanford, 1921	Hughson	Min. gr.	546 Encina
[5]Reppy, Vera May	Los Angeles	Cl. Lit. 108·67+101	Madroño
Reticker, Roland Wilson	Los Angeles	Econ. 39·82+0	Delta Chi
[1]Rettenmeyer,CarlAdolph	LoupCity,Nebr.	LD 38·79+47	435 Encina
[23]de Reynier, Ernest Eisen	Berkeley	LD 47·31+19	Delta Upsilon

Reynolds, Charles Lee, Jr.	Portland, Ore.	LD 42–4	Theta Delta Chi
[4]Reynolds, Charlotte Almira	Palo Alto	LD	360 Kellogg-p
Reynolds, Frances Elizabeth	Alhambra	LD 66+15	Alpha Phi
[1]Rhodes, Dorothy Anne	Chino	LD 5–14	372 Roble
[2]Rhodes, Fred Harold, Jr.	Palo Alto	M.E. 88·14+28	151 Waverley-p
[23]Rhodes, Orlando Hunter	Santa Monica	Law 169+76	Phi Kappa Psi
Rich, Murray Weir B.S., Colgate, 1919	New York, N.Y.	Phil. gr.	601 Webster-p
[4]Richards, Julius K. A.M., Columbia, 1917	San Bernardino	Fr. gr.	29 Encina
Richards, Lawrence W.	Los Angeles	LD 97+2	Delta Upsilon
Richardson, Alan Campbell	MenloHeights	Chem. 30·82+38	Menlo Heights
[1]Richardson, Donald Bird	Palo Alto	LD 71–3	460 Kingsley-p
[1]Richardson, Helen Dale	Palo Alto	LD ‡ 32–9	Alpha Omicron Pi
Richardson, Margaret L.	Los Angeles	Econ. 24·117+49	Delta Gamma
[12]Richardson, Paul Eddy	Glendale	C.E. 111–9	Sigma Chi
[5]Richardson, Remond W. A.B., Stanford, 1922	Washington, D.C.	Geol. gr.	Menlo Heights
[5]Richardson, Rob't D.	Wynnewood, Okla.	Econ. 174+36	55 Encina
Richardson, William Hord	Los Angeles	LD 45+32	Delta Upsilon
Richer, John Daniel	Los Angeles	Law 140+51	Alpha Tau Omega
[4]Rider, Percy Sowers, Jr.	Tucson, Ariz.	LD sp.	323 Union
Riddell, Robert Alexander	Butte, Mont.	LD 38+7	35 Sequoia
[5]Rideout, Laurence W.	Stoughton, Mass.	LD sp. 8·41–17	197 Bryant-p
[124]Ridley, Daniel Graves	San Jose	Pol. S.-Law 163+0	426 Encina
Riegle, John, Jr. A.B., Stanford, 1923	Los Angeles	Geol. 99·100+13	555 Encina
[2]Righetti, Tilden	Orcutt	LD ‡ 5–8	408 Encina
Rinn, Robert Henry	Lodi	LD 95+89	10 Sequoia
Rippey, Stanton	Los Angeles	LD 82+15	730 Bryant-p
[5]Rising, Beach Miller	Los Angeles	Econ. ‡ 22–14	Sigma Nu
[124]Rising, Franklin Edw., Jr.	Los Angeles	LD 58+1	Sigma Nu
[1]Rispin, Alan Winfield	Capitola	LD 0–13	105 Encina
[4]Ritchie, Eva B.A., Maryville, 1919	Ojai	Engl. gr.	323 Alma-p
Ritchie, Kenneth S. A.B., Stanford, 1921, Engineer, 1923	Stanford Univ.	Chem. gr.	504 Encina
Riter, Randolph Bradley	Logan, Utah	Econ.-Jn.141+118	Alpha SigmaPhi
Ritland, Hubert Oliver	San Diego	LD 49+25	49 Encina
Rixford, Emmet Lane	San Francisco	LD 46+1	Theta Chi
Rixford, Henry Covington	San Francisco	LD 71–6	352 Encina
[4]Roach, Nellamena Dorothy B.L., Kansas Wesleyan, 1921	Salina, Kans.	Engl. gr.	346 Roble

[3,4]Roads, Marion Otsuyu	Stanford Univ.	LD 70·16+20	Kingscote
[5]Robbins, Carl Burton	Port Norris, N. J.	LD 108+50	431 University-p
Robbins, Catherine J. A.B., Stanford, 1922, A.M., 1923	Santa Barbara	Math. gr.	369 Forest-p
Roberts, Dwight Conklin	Los Angeles	Min. 130·91+8	Delta Upsilon
Roberts, George Duncan	Calexico	LD 72+16	Phi Delta Theta
[4]Roberts, Sara A. A.B., Washington, 1921	Bellingham, Wn.	Engl. gr.	181 Roble
Robertson, Alan Hazelton	SantaMonica	LD 75+50	Phi Kappa Psi
Robertson, Donald Logan	Modesto	Phyl. 160+161	46 Sequoia
Robertson,JohnWadsworth	SanFrancisco	LD 87+26	248 Encina
[5]Robertson, Kenneth Gregg	San Leandro	Phil. 70·93+76	84 Sequoia
Robertson, Margaret M. A.B., Stanford, 1922	Redwood City	Med. gr.	2475 Filbert, SF-sf
[5]Robertson, Raymond M. A.B., Stanford, 1921	Deputy, Ind.	Law gr.	1160 Bryant-p
[5]Robinson, Bevier A.B., Stanford, 1923	Santa Ana	Educ. gr.	835 Cowper-p
Robinson, Dwight Louis	Sapulpa, Okla.	LD 49+1	650 Waverley-p
Robinson, Floyd Amos A.B., Stanford, 1923	Gilroy	Econ. 184+49	223 Encina
Robinson, Frances du Brutz	Aurora,Ore.	LD 86–3	1200 Bryant-p
Robinson, Jere W., Jr. A.B., Stanford, 1922	Boise, Idaho	E.E. gr.	246 Encina
[2]Robinson, John H. A.B., Stanford, 1923	Auburn	Econ. 90·97+16	56 Sequoia
Robinson, W. Price	Herndon	Engl.-Jn. 83·50+25	15 Encina
Robison, Russell Roscoe	Jackson	LD 145+46	423 Encina
Robley, John Chisholm	Pacific Grove	LD 27–25	310 Encina
Robson, Dorothy Joyce A.B., Stanford, 1923	Campbell	Sch. Ed. gr.	256 Roble
[1,2]Roby, Rich'd Rush	ColoradoSpr'gs,Colo.	LD 66–17	545 Bryant-p
[2,3]Rodegerdts, Carl Ernest	Sacramento	LD 29+5	Sigma Chi
Rogers, Ada Birdella	Hanford	Cl. Lit. 114+57	KappaAlphaTheta
Rogers, Alfred Emery	Los Angeles	LD 81+32	Delta Chi
[4]Rogers, Alice Clare	Letohatchee, Ala.	Ed. G.A. ‡ 15+14	323 Roble
[5]Rogers, Genevieve	Stanford Univ.	LD 61+40	15 Salvatierra
Rogers, Josephine Rand	San Jose	Psych. 90·40+22	331 Roble
[2,3]Rogers, L. Hershey	Salt Lake City, U.	LD 68+30	251 Encina
[4]Rogers, M. Alexander A.B., Stanford, 1922 A.B., Stanford, 1923	Santa Ana	Educ. gr.	420 Ramona-p
[1,2]Rogers, Robert Greene	San Jose	Geol. 57·142+8	1121 Bryant-p

Rogers, William Lister A.B., Stanford, 1923	Hayward	Med. gr.	45 16th ave., SF-sf
[4]Rohner, Clara Ann	Palo Alto	LD	Newall Rd.-p
[4]Roll, Ella Louise A.B., Stanford, 1917	Santa Clara	Educ. gr.	1665 Santa Clara,-SC-sc
[124]Rolley, Leslie Eugene		LD sp. 64–16	Box 486-p
[4]Rollins, Charles Arthur	Tucson, Ariz.	LD ‡	329 Hawthorne-p
[4]Romer, Andrew Ralph A.B., Emporia, 1916	Meeker, Colo.	Educ. gr.	808 Waverley
[5]Rominger, Dorothy M.	Long Beach	Hist. 91·92–21	KappaKappaGam.
[4]Romney, George Samuel A.B., Utah, 1917	Rexburg, Ida.	Educ. gr.	558 Hawthorne
Roodhouse, Edwin Greenlee	Alhambra	LD 42+16	325 Encina
Root, Enid Doris	San Francisco	LD 37·26–7	330 Roble
Roper, Elizabeth V.	Los Angeles	LD 95+92	Alpha Phi
Rorden, Harold Louis	Petaluma	M.E. 48+84	205 Encina
[2]Rorke, Harold B.	Hollywood	Pol.S.-Jn.109–17	PhiGammaDelta
[1]Rose, Franklin Orth A.B., Stanford, 1917	Santa Monica	C.E. gr.	129 Emerson
Rose, Milton Franklin	Salisbury, N. C.	LD 39–5	125 Encina
[23]Rose, Norrell Edmund	Santa Ana	LD ‡ 12–11	418 Ramona-p
Rosebrook, Genevieve C.	Palo Alto	LD 33·64+4	336 Emerson-p
[5]Rosenbaum, Charles W.	San Francisco	LD 60–12	234 Encina
[23]Rosenbaum,Edward F.	SaltLakeCity,U.	LD ‡ 29+4	137 Encina
[5]Rosenbaum,Mervin Fred	San Francisco	Hist. 162+25	558 Encina
[4]Rosenblatt, Hermine	San Francisco	LD ‡	328 Roble
Rosenburg, Philip	Hollywood	LD 69+0	123 Encina
[124]Rosendale, Phyllis Louise	Salinas	LD 12+3	242 Roble
[5]Rosenfield, Milton S.	Stanford Univ.	Law 49·67+33	210 Union
[5]Rosneau,David Lee,Jr. A.B., Yale, 1922	NewHaven,Conn.	Law gr.	120 Encina
[5]Ross, Arthur Alexander	Kuna, Ida.	LD sp. 9·70+10	228 Encina
Ross, Blanch Emline	Redwood City	Span. 165+193	Alpha Phi
Ross, Chester Erwin	Gilroy	LD 45+36	449 Encina
[5]Ross, Dean Ralph	Alhambra	Econ. 166+93	Alpha Tau Omega
[3]Ross, Dudley Tyng	Palo Alto	LD 15+20	211 Melville
[5]Ross, Gordon McKinnon	Kuna, Ida.	LD sp. 7·70+23	227 Encina
[12]Ross, James Gordon	Santa Barbara	Econ. 14·133+13	335 Union
Rossarini, Edith Yola	Truckee	LD 74+81	Delta Delta Delta
[4]Rossell, James Ellsworth	Tucson, Ariz.	LD sp.	243 Webster-p
Roth, Alice Caroline	Willits	Phil. 132+90	Santa Teresa
Rothschild, Rene Levy	Greeley, Colo.	LD 95+43	22 Encina

[1]Rousselot, Norman Auguste Oakland Geol. 180+130 Kappa Alpha
A.B., Stanford, 1923
[5]Row, Martin Armel Oklahoma City, Okla. Econ.-Law 116+67 25 Sequoia
Rowell, Milo Edwin Fresno LD 121+26 Alpha Sigma Phi
[5]Rowland, DeWitt Clark Tacoma, Wn. Geol. 143+134 322 Encina
Rowland, Gilford Glenn Stanford Univ. Pol. S.-Law 182+213 319 Encina
A.B., Stanford, 1923
[12]Rowles, Fillmore Mountain View LD 50–11 500 Encina
*[3]Royden, George Taylor San Mateo E.E. gr. 311 Ellsworth, SM-sm
A.B., Stanford, 1917
[2]Royston, Frank Feurt Oakland Econ. ‡ 16–10 611 Bryant-p
Rozeboom, Egbert Andrew Turlock LD 15+5 Walnut & Laurel-p
[1]Rumwell, Arnold San Francisco LD 47–11 Alpha Sigma Phi
[4]Runyan, James Nelson Ellwood City, Pa. LD 44–26 223 Encina
[5]Rush, John Louis Los Angeles Law gr. Phi Kappa Psi
Ph.B., Denver, 1921
Rusk, James Henry Palisades, Colo. Hist.-Law 96·48+51 Phi Delta Theta
[134]Russ, Glenn Allen Carlotta Engl. gr. 326 Encina
A.B., Stanford, 1923
[23]Russell, Frank Marion Berkeley Pol. S. gr. 2540 Buena Vista, B
A.B., Stanford, 1912, A.M., 1913
[4]Russell, Hayden B. Frostburg, Md. LD ‡ Sigma Alpha Epsilon
[12]Rutter, Cloud Damon San Francisco LD 103–23 Delta Chi
[4]Ryan, Frederick Lynne Mayfield Econ. gr. 932 Palo Alto-m
B.S., Tufts, 1916
[3]Ryan, John J. C. San Francisco LD Kappa Alpha
[4]Ryberg, Emily May Kenyon, Minn. LD sp. 342 Roble
[1]Sager, Charles Harpham Waukegan, Ill. LD 75–15 9 Sequoia
Sah, Pen-Tung Foochow, China M.E. 135·55+91 Chinese Club
Saier, Milton Herman Fresno Chem. 144+33 Theta Xi
[5]Salisbury, Frank S. Renton, Wn. Educ. gr. 720 Lincoln, M-m
A.B., Washington, 1916, A.M., 1918
[12]Sampson, Richard Hunt Los Angeles Law 151+84 Delta Kappa Epsilon
Samuel, Edmund Willard Mt. Carmel, Pa. M.E. 90·139+14 115 Embarcadero
A.B., Stanford, 1923
Sanborn, Lewis Hampton San Francisco Med. gr. 2202 Calif., SF-sf
A.B., Stanford, 1921
[5]Sandberg, W. Lee Collins, Mont. Econ. 139+30 317 Union
Sanders, John Forrest Saratoga LD 48+35 Saratoga-s
Sandretto, Paul J. B. Fosteria M.E. 184+162 431 Encina
A.B., Stanford, 1923
[5]Sands, Albert W. Stanford Univ. Geol. 144+82 220 Encina
[1]Sanford, Dudley Phelps San Jose Phyl.-Med. 167+23 Union

Sanguinetti, Melvin Stephen — Lodi — LD 92+121 — 4 Sequoia
Sano, Joseph Yuzuru — San Francisco — LD 87+2 — Japanese Club
Sanson, Kenneth Dudley — South Pasadena — LD 44·47+54 — 14 Sequoia
[5]Sansone, John Baptist — Toronto, Canada — Geol. 176+93 — 222 Encina
[5]Sant, George Renshaw — San Francisco — Econ. 70+14 — Zeta Psi
Sapero, Kalmen Y. — Long Beach — Econ. 179+148 — 34 Sequoia
A.B., Stanford, 1923
Sappington, Emmett Earl — Watsonville — Med. gr. — 2319 Webster, SF-sf
A.B., Stanford, 1922
Sargent, Aaron More — San Francisco — M.E. 180+133 — 129 Encina
A.B., Stanford, 1923
Sauer, Fred Charles — Reedley — LD 25·42+69 — 365 Lincoln-p
[12]Saunders, Lowell W. — Red Bluff — Geol. 180+50 — Phi Kappa Sigma
A.B., Stanford, 1923
Sawyer, F. Orville, Jr. — Los Angeles — LD 34–14 — 347 Encina
[1]Sawyer, Theo. K. — Swarthmore, Pa. — Geol. 45·84–25 — 401 Encina
Saxon, Muriel Dorothy — Willits — LD 38–1 — 253 Roble
[3]Schacht, John Henry, Jr. — Sacramento — LD 15+10 — 469 Homer-p
Schaefer, John H. — Palo Alto — Chem. ‡ 34+12 — 1435 Tasso-p
Schall, Wheeler F. — Monte Vista, Colo. — Econ.-Jn.34·157+48 — 11Salvatierra
A.B., Stanford, 1923
Schardin, Helen Katherine — Sacramento — Cl.Lit.18·135+125 — DeltaDeltaDelta
Scheidecker, Albert F. — Sebastopol — LD 45+20 — 329 Encina
Scherf, Elmer Emil — San Jose — Econ. 180+91 — Delta Tau Delta
A.B., Stanford, 1923
Schmid, Harold William — Palo Alto — LD 124–5 — 235 Emerson-p
Schmieder, Fremont R. — San Francisco — LD 121+51 — 420 Encina
[5]Schneider, Phillips Sumner — Berkeley — Econ. 9·136+45 — Zeta Psi
Schoen, Arthur Castle — Hilo, T. H. — LD 85+58 — 316 Encina
Schofield, Mary Lusia — Palo Alto — LD 45+78 — 751 Channing-p
[4]Schray, Emma — Fresno — Sch. Ed. ‡ — 329 Roble
[4]Schroter, Florence P. — San Mateo — Hist. ‡ — 22 North C, SM-sm
[5]Schultz, Alfred F. — Tripoli, Ia. — Geol. 5·112–4 — 626 Gilman
Schultzberg, Frank Irwin — San Francisco — LD 82+40 — Theta Chi
[4]Schultzberg, George — Salinas — Educ. gr. — Campus
A.B., Stanford, 1922
[3]Schumacher, John — Los Angeles — Law 189+0 — Phi Gamma Delta
A.B., and LL.B., Stanford, 1923
[5]Schumann, Harry Frederick — Palo Alto — M.E. 45·48+67 — 175 Webster-p
[23]Schwartz, Eva Doris — San Mateo — Bact. 94·26+18 — 741 CostaRica,SM
Schwartz,Laura Virginia — Honolulu,T.H. — Engl. gr. — 230 Roble
A.B., College of the Pacific, 1920; A.M., Stanford, 1923
[1]Schwartz, Wm. Leonard — Mayfield — Fr. gr. — 421 Harvard, M
A.B., Ohio Wesleyan, 1910; A.M., Stanford, 1920

[1]Schwenck, Julius Rae A.B., Utah, 1921	SaltLakeCity,U.	Chem. gr.	310 Union
Scofield, Eugene Cottle	Palo Alto	LD 39+15	430 Kingsley-p
[12]Scofield, Norman McCray A.B., Stanford, 1923	Palo Alto	M.E. 180+16	430 Kingsley-p
Scofield, Philip Forest	Palo Alto	LD 125+110	430 Kingsley-p
[5]Scott, Flora Murray B.S., St. Andrews, 1914	Mayfield	Bot. gr.	346 Harvard, M
Scott, Josephine A.B., Stanford, 1923	Los Angeles	Hist. 180+159	253 Roble
Scott, Raymond Robert A.B., Stanford, 1922	Selma	Med. gr.	1920 Post, SF-sf
Scribner, Harold W.	San Francisco	M.E. 173+37	40 Sequoia
[5]Scribner, Theo. Edward	San Francisco	Econ. 125+158	66 Sequoia
Scribner, Thornton Seron	Monticello	LD 46+12	359 Encina
Scudder, Joseph B.	Trenton, N. J.	LD 90+80	535 Byron
[5]Seaman, Wesley Albert A.B., Stanford, 1923	Marshfield,Ore.	Law gr.	1035 Alma
Seay, Wellford D. A.B., Occidental College, 1913	Stanford Univ.	Hist. gr.	17 Alvarado
[5]Seeger, Thomas Fred.	Winslow, Ariz.	LD 64–11	608 Channing-p
[4]Seeley, Helene Frances	Kingman, Ariz.	LD	229 Roble
[4]Segel, David M.A., Columbia, 1922	Palo Alto	Educ. gr.	619 Channing-p
[134]Selig, Philip, Jr.	San Francisco	LD 31+35	235 Encina
[5]Selna, Adeline Aurora A.B., Stanford, 1922	Stockton	Span. gr.	301 Roble
Senior, Clair Marcil LL.B., Stanford, 1923	Salt Lake City, U.	Law 40·174+307	59 Sequoia
Senior, Raymond Theo.	SaltLakeCity,U.	LD 33·48+13	59 Sequoia
[134]Senter, Wm. Allan, Jr.	SaltLakeCity,U.	C.E. 69·74+19	71 Sequoia
Sera, Morio	Hiroshima, Japan	LD 44+24	Japanese Club
[23]Serrurier, Lawrence R. A.B., Stanford, 1922	Portland,Ore.	Med. gr.	419 Encina
[234]Severson, Lewis Everett A.B., Kansas, 1919	Newkirk,Okla.	Econ. gr.	214 Union
Sewell, Charles Alvin A.B., Stanford, 1923	Elko, Nevada	Econ. 183+145	Sigma Alpha Eps.
Sewell, Herbert Allyn	Elko, Nevada	LD 44+21	206 Encina
[5]Seymour, David Bruce	Santa Rosa	Geol. 126–1	30 Encina
[1]Shadomy, Elmus Vincent	Los Angeles	LD 0–15	542 Cowper-p
[5]Shannon, George Pope A.B., Vanderbilt, 1917; A.M., Stanford, 1923	Redwood City	Engl. gr.	RFD 1, RC-rc
[4]Shannon, Margaret Lee B.A., Tennessee, 1918	Portola	Engl. gr.	R.F.D., RC-rc

[4]Shannon, Patrick	Stanford Univ.	LD 11·65+24	55 Encina
Sharp, James Graham, Jr.	Palo Alto	LD 75+69	Zeta Psi
[1]Sharp, John Chester	Seattle, Wn.	Phyl. 11·124+62	Theta Chi
Sharp, Milo Corlett	Riverside	LD ‡ 45+24	122 Encina
[23]Shattuck, Spenser Sidney	Bisbee, Ariz.	LD 33+32	21 Salvatierra
Shaull, Ethel M.	Los Angeles	Psych. 6·135+220	384 Roble
[1]Shaw, Perry M.	Berkeley	Econ. ‡ 85–32	Sigma Chi
[12]Shaw, Richard Pflum	San Francisco	LD 25–2	Sigma Chi
[5]Shedd, Bertha Labaree	San Jose	LD 48+78	262 Roble
[4]Sheets, Guy R.	Glendale, Ariz.	LD sp.	741 Palo Alto, M
Sheffield, Carlton Allyn A.B., Stanford, 1923	Long Beach	Engl.-Jn. 185+69	32 Encina
[5]Sheldon, Frances E. A.B., Stanford, 1922	Los Angeles	Law gr.	Gamma Phi Beta
[4]Sheldon, Phebe B.A., Pomona, 1918	Pomona	Educ. gr.	332 Roble
Shelly, James L.	Phoenix, Ariz.	Econ. 53·52+23	Kappa Sigma
Shen, Eugene A.B., Stanford, 1923	Shanghai, China	Psych. 135·49+73	Chinese Club
Shepard, Jessie R. A.B., Pomona, 1922; A.M., Stanford, 1923	Glendale	Sch. Ed. gr.	Madroño
Shepard, Orson Cutler	San Jose	LD 45·88+67	24 Sequoia
Shepard, S. Dorothy	San Jose	Hist. 9·139+81	112 Roble
[4]Shepherd, David A.B., Utah, 1918	Logan, Utah	Ent. gr.	College Terrace
Shepherd, Theodore H. A.B., Stanford, 1923	Hollywood	M.E. 182+26	22 Sequoia
[22]Sherer, Horace Carroll A.B., Stanford, 1923	Long Beach	C.E. 61·124+13	11 Salvatierra
[5]Sherman, Ira Lawrence	Los Angeles	LD 8·60+67	21 Sequoia
Shermund, Ralph Conrad	San Francisco	LD 58–12	Kappa Alpha
[13]Sherrard, Dorothy Addine A.B., Stanford, 1923	Los Angeles	Engl. gr.	Alpha Phi
Sherrill, Frederick Orlo	Riverdale	LD 82–4	403 Encina
Sherrill, Gilbert Oren	Riverdale	LD 43+4	444 Encina
[34]Sherwood, Frank T.	Palo Alto	LD sp. 25+9	418 Ramona-p
[1]Shields, Elizabeth Louise	San Diego	LD 17+18	282 Roble
Shillock, George W.	Palo Alto	LD 50+24	363 Melville-p
Shipkey, Harry Hector, Jr.	Fullerton	LD 82+25	Kappa Sigma
Shipp, Kenneth J. A.B., Stanford, 1923	Watsonville	Econ. 180+128	Delta Chi
[3]Shlaudeman, Frank Henry	Pasadena	LD 12+0	317 Channing-p
[2]Shlaudeman, Karl Whitman A.B., Stanford, 1923	Pasadena	Sch. Ed. gr.	Chi Psi

[12]Shoenhair,George John,Jr.	Los Angeles	Econ. 108+3	Delta Upsilon
Sholes, Edward Arlan	Long Beach	LD 43–4	Theta Xi
[1]Shott, Ralph N.	Birmingham, Ia.	Pol. S. 92·89+62	80 Sequoia
A.B., Stanford, 1923			
Shoup, Carl Sumner	Los Altos	Law 132+199	Phi Delta Theta
Shumaker, Phil William	Los Angeles	LD 47+28	Sigma Alpha Epsilon
[4]Sibley, Judson Standish	Pontiac, Mich.	LD sp.	Palo Alto-p
[5]Siddle, Robert William	Cody, Wyo.	Pre-Clin. 170+51	Menlo Heights
Sidway, Charles Lee	Ocean Park	LD 137+34	116 Encina
Siebert, Alfred Adolph	San Jose	Med. gr.	495 E.SantaClara,SJ-sj
A.B., California, 1921			
[234]Sievers, John Paul	La Habra	LD 74+31	501 Encina
[2]Silitch, Eugene W.	Petrograd, Russia	C.E. 135·15+15	15 Salvatierra
[1]Silveira, Joseph T.	Sebastopol	Min. gr.	329 Encina
A.B., Stanford, 1922			
[1]Silver, Charles Richard	Irvington	LD 75+44	30 Sequoia
[4]Silverberg, Jane	San Mateo	LD ‡ 9–5	143 El Cerrito, SM-sm
Silverberg, Joseph S., Jr.	San Mateo	LD 38–12	235 Encina
Silverman, A. George	Dorchester, Mass.	Econ. gr.	358 Addison
S.B., Harvard, 1921			
Silvius, Herbert	Sacramento	LD 41+32	448 Encina
Simmons,Elisabeth Crocker	Sacramento	LD 87+35	Kappa Kappa Gamma
[3]Simmons, Rouse	Portland, Ore.	Fr. gr.	315 Everett-p
A.B., Stanford, 1922			
[34]Simmons, Samuel Bradford	Sacramento	Econ. 87–21	323 Union
[12]Simon, Dewey	Ely, Nev.	Econ. 180+88	505 Encina
A.B., Stanford, 1923			
[1]Simons, Herbert R.	Riverside	Geol. gr.	Delta Tau Delta
A.B., Stanford, 1923			
Simpson, Matthew Cheney	Long Beach	Law gr.	Alpha Sigma Phi
A.B., Stanford, 1921, J.D., 1923			
Sims, Francis LeRoy, Jr.	Stockton	LD 36·44+29	12 Sequoia
Skrivanek, Vladimir	Stanford Univ.	LD 10·60+6	200 Encina
[4]Slater, Kenneth N.	Mountain View	Educ. ‡ 55+48	696 Bailey, MV-mv
[34]Sleeth, Gail	Norman, Okla.	Engl. gr.	Madroño
B.A., Oklahoma, 1921			
Sloan, LeRoy	San Jose	LD 91+13	226 Encina
Sloan, Thomas Kemp	Mountain View	Chem. 185+71	AlphaKappaLam.
A.B., Stanford, 1923			
Sloss, Richard Louis	San Francisco	Hist. 149+157	218 Encina
Slosson, Albert Edward	Palo Alto	LD 57–17	253 Fulton-p
Smeaton, Winifred I.G.	AnnArbor,Mich.	Cl. Lit. 46+66	Gamma Phi Beta
[1]Smith, Albert Edward	Sacramento	LD 50–23	Zeta Psi

[4]Smith, Alice London	Catalina Is.	Econ. ‡	322 Roble
[1]Smith, Alice Myrmida	Palo Alto	Econ.-Jn. ‡ 15+15	415 Lytton-p
Smith, Archie Alexander	Palo Alto	Law 24·126+45	451 University-p
[12]Smith, Carl Victor A.B., Stanford, 1921, J.D., 1923	Oakland	Law gr.	207 Union
Smith, Cecil Jules	Los Angeles	LD 106+1	423 Encina
[4]Smith, Charles George A.M., Pennsylvania, 1920	Silver City, N.C.	Engl. gr.	130 Encina
Smith, Charles Herbert A.B., Stanford, 1923	Saratoga	M.E. 181+98	38 Sequoia
Smith, Clair Curtis	Vancouver, B. C.	LD 41+15	459 Homer-p
Smith, Edgar Tevis	Los Angeles	LD 96+51	Phi Kappa Sigma
[3]Smith, Edward Anderson	Palo Alto	LD 15+2	330 Palo Alto-p
[4]Smith, Edwin Oscar A.B., McKendree, 1908, A.M., 1909	Pasadena	Cl. Lit. gr.	130 Encina
[4]Smith, Erna	Fresno	Hist. 118·22+27	363 Roble
[1]Smith, Everett Russell	Los Angeles	LD 19–28	Chi Psi
[5]Smith, Francis Albert A.B., Stanford, 1922	Palo Alto	Chem. gr.	600 Lincoln-p
Smith, Frank Lee	San Carlos	C.E. sp. 54+21	Box 17, SC-sc
[23]Smith, Frederick Young	Los Altos	LD 29+4	127 Encina
[5]Smith, George James	Menlo Park	Geol. 133+85	R.D. 112, MP-mp
[5]Smith, George Keil	Vallejo	LD 74+1	530 Encina
[234]Smith, Geo. Rob't	PassChristian,Miss.	Law sp. 20+8	Los Gatos
Smith, Harold Wm. A.B., Stanford, 1923	Port Huron,Mich.	Econ. 92·89+11	327 Encina
Smith, Howard Carlisle	Palo Alto	LD 93+83	1335 Cowper-p
Smith, I. M. Scott	San Francisco	Law 140+53	208 Encina
Smith, J. Howell	Big Creek	Econ. 180+114	Zeta Psi
[4]Smith, John Lyman A.B., Utah, 1919	Oakley, Idaho	Hist. gr.	620 Gilman-p
Smith, James Parley A.B., Stanford, 1923	Prescott, Ariz.	Law 108·86+67	305 Union
Smith, Jessie Edna A.B., Stanford, 1916, A.M., 1917	Redwood City	Fr. gr.	Box 176, RC-rc
[23]Smith, Laura Parsons	Menlo Park	LD 25+4	Box 223, MP-mp
Smith, Lemuel C., Jr.	El Paso, Tex.	M.E. sp. 10·131–5	333 Encina
Smith, Merilyn Maude	Fresno	LD 19–24	202 Roble
Smith, Norwood Browning	Woodside	LD 99+2	Delta Chi
Smith, Pearl Mabry A.M., Wisconsin, 1916	Stanford Univ.	Med. gr.	2139 Pierce, SF-sf
Smith, Philip Grey A.B., Stanford, 1923	Los Molinos	Law gr.	231 Union

[4]Smith, Ralph Day	Hutchinson, Kans.	C.E. ‡ 36–20	318 Emerson-p
[4]Smith,Raym'dWarner	Kalamazoo,Mich.	LD	769 Katherine-p
[12]Smith,Richard Chatfield A.B., Stanford, 1923	NewYork,N.Y.	Econ.10·175+46	R1,Bx140,MP-mp
[12]Smith, Robert Layton	Spokane, Wn.	LD 36–12	Laurel Court, MP
[12]Smith, Ross Stewart	Palo Alto	LD 89+21	920 Waverley-p
[23]Smith, Seymour P. E.	Pacific Grove	LD 33+30	303 Encina
Smith, Wayne Mingus	Big Creek	LD 41+1	Zeta Psi
Snedden, Donald Scott A.B., Stanford, 1923	Yonkers, N.Y.	Phil. 10·174+146	210 Union
Snedden, Ruth	Yonkers, N.Y.	LD 46+40	215 Roble
Snell, James Hall	Browns Valley	Law 134+17	232 Encina
[4]Snow, Byron Reginald	Palo Alto	Engl. ‡	481 University-p
Snow, Irving Walter A.B., California, 1907	Palo Alto	Educ. gr.	930 Waverley-p
Snow, William Boring A.B., Stanford, 1923	New York,N.Y.	M.E. 185+226	38 Sequoia
[23]Snyder, Charles Anthony	Palo Alto	LD sp. 13–6	1044 Bryant-p
[4]Snyder, Evelyn H.	Stanford Univ.	LD 223	Chestnut,PacificGrove-pg
[1]Snyder, Harry Lay	Palo Alto	LD 63–31	733 Addison-p
Snyder, Raymond B.	Tacoma, Wn.	LD 18–8	179 University
[4]Snyder, Raymond Hugo A.M., Chicago, 1919	IdahoFalls,Ida.	Educ. gr.	847 Bryant
de Sola, Ernest	San Salvador, C. A.	LD 32–5	448 Encina
[3]Sollars, Maxine E.	Woodbridge	LD 23·14+9	267 Roble
Solomon, Fred Frank	Venice	LD 53–5	Zeta Psi
Somerfield, Harry A. A.B., Stanford, 1921	Cincinnati, Ohio	Med. gr.	2321 Sacramento, SF-sf
Somers, Melvin Ralph A.B., Stanford, 1923	Hollywood	Chem. 44·150+98	511 Encina
[234]Sommer, Herbert Lemle	San Francisco	LD 32+26	429 Encina
[5]Soper, Harold Calhoun A.B., Stanford, 1923	Palo Alto	Law gr.	Phi Kappa Psi
[4]Soper, Laura DeWitt A.B., Emporia, 1915	Los Gatos	Engl. gr.	Campus
[1]Sorenson, Lionel W. B.S., Agricultural College of Utah, 1918	Gunnison, Utah	Pre-Med. gr.	1160 Bryant-p
Sortor, Charles Holland A.B., Stanford, 1923	Tulare	M.E. 181+137	204 Encina
Southwell, William Lee LL.B., Stanford, 1923	Ogden, Utah	Law 210+92	233 Encina
Spangler, Lura Lee A.B., Stanford, 1923	Los Angeles	Ed.G.A.90·91+29	Kap.KappaGam.
[12]Spangler, Martha Jane	Los Angeles	LD 46·72+56	Kappa Kappa Gam.

Spangler, Raymond L.	So.SanFrancisco	LD 92+71	401 Encina
[5]Sparks, Dale Darrell A.B., Stanford, 1923	Los Angeles	Geol. gr.	627 Emerson-p
[4]Spaulding, Benjamin H.	San Jose	Educ. ‡ 8+11	330 S. 12th, SJ-sj
Spaulding, Harold Sheerer	Costa Mesa	M.E. 52·130+105	22 Sequoia
Spears, Julia Buckner A.B., Stanford, 1923	Dallas, Texas	Engl. 180+120	Kingscote
[12]Specking, Inez M. A.B., Harris Teachers College, 1922; A.M., Stanford, 1923	St. Louis, Mo.	Engl. gr.	Madroño
[4]Spencer, Hattie A.	Imperial	LD sp.	118 Roble
[5]Spencer, Percival I. V.	Los Angeles	Law 84+51	21 Sequoia
Spencer, Robert Phillip	Pasadena	Law 128+61	19 Encina
[23]Spilman, Elizabeth Brewer A.B., Stanford, 1922	Palo Alto	Law gr.	Kappa Alpha Theta
[23]Spilman, Ruth Lee	Palo Alto	LD 68+75	471 Addison-p
[23]Spiro, Lawrence Leland	San Francisco	LD 10–11	234 Encina
Spring, Carl William	Cupertino	LD 80+9	Cupertino-c
[4]Spooner, Ralph Francis	Tucson, Ariz.	LD sp.	Mayfield-p
Sproull, Henry Franklin A.B., Stanford, 1923	Los Angeles	Chem. 10·175+6	Beta Theta Pi
Spruyt, Frederik Johannes Gerard Adrian von Sureten Horticultural School	Mayfield	Ent. gr.	Amherst, M
[5]Spurlock, Franklin, Jr.	Covelo	Geol. 165+49	417 Encina
Stafford, Claude Cecil	Long Beach	Pre-Med. 88·49+16	201 Encina
[12]Stanbery, William Barber A.B., Stanford, 1923	Los Angeles	Law 180+42	Sigma Alpha Epsilon
[4]Standish, Clara May A.B., Tufts, 1904	Dighton, Mass.	Chem. gr.	234 Roble
[5]Stanford, Leland Ghent	Mayfield	Law 53·98+55	1201 Palo Alto,M
[12]Stanley, Camillus Russell A.B., Stanford, 1923	Palo Alto	M.E. 180+29	269 Hawthorne-p
Stanley, Florence Ellen	Palo Alto	LD 40–1	269 Hawthorne-p
Stanley, Raymond S.	Cleveland, Ohio	LD 46+27	450 Encina
Stanton, Frank Cyril	San Francisco	LD 38–9	203 Encina
Stanton, Pauline Dickinson A.B., Stanford, 1923	Pasadena	Educ. gr.	Kappa Alpha Theta
[12]Starkins, Franklin Edward	Ithaca, N.Y.	LD 30·58+71	723 Hamilton
Starks, Dorothy Johanna	Palo Alto	Pre-Clin. 174+299	1115 Ramona-p
Starr, Walter Augustus, Jr.	Piedmont	Law 20·122+130	Delta Kappa Eps.
Stauffer, Leo Maynard A.B., Stanford, 1923	Pasadena	E.E. gr.	321 Union
[5]Stayner, Paul Lewis	Salt Lake City, U.	Fr. 96·38+33	603 Middlefield-p
Steele, Archie Trojan	Boise, Idaho	Econ.-Jn. 142+153	435 Encina

Steele, Gurdon Donald	Lodi	LD 76–17	10 Sequoia
Steffen, Theodore John	Portland, Ore.	Econ. 88·46+6	DeltaKappaEpsilon
[1]Steiger, Katherine	Vacaville	Econ. 45·86–13	AlphaOmicronPi
Steiger, Margaret Abbie A.B., California, 1917	Vacaville	Sch. Ed. gr.	Madroño
[4]Steinbach, Hermann R. B.L., California, 1906	Sacramento	Ger. gr.	275 Hamilton-p
[234]Steinbeck, John Earnest	Salinas	Engl.-Jn. 36–13	32 Encina
[5]Steinbeck, Mary Blanch	Salinas	LD 44+23	240 Roble
[5]Steindorf, Stanley Archie A.B., Stanford, 1922	Campbell	Law gr.	216 Encina
[4]Steinhart, Claire H.	Santa Clara	LD 73·25+14	179 Roble
[3]Stenberg, Franklyn R.	Fresno	LD 38–23	445 Encina
Stephens, John Stewart	Los Angeles	LD 83+18	Phi Kappa Psi
Stephens, Philip Harvey	Los Angeles	LD 86+15	Phi Kappa Psi
[3]Stephens, Robert Lee	Portland, Ore.	LD 37–21	
Sterling, Theodore Kesler	StanfordUniv.	Law 21·144+31	Sigma Alpha Eps.
Stern, Ruth Esther A.B., Stanford, 1923	Portland, Ore.	Econ. 181+259	250 Roble
Sternberg, Selwyn J. A.B., Stanford, 1923	Los Angeles	Educ. 113·67+15	316 Union
[4]Stevens, Francis F.	San Francisco	Chem. ‡	1007 Gough, SF-sf
Stevens, Howard	Rockford, Ill.	Econ. 135+75	Theta Chi
[1]Stevenson, Archie MacN.	Portland, Ore.	LD 44–19	224 Encina
Stevenson, Doris Maude A.B., Stanford, 1922	Alhambra	Sch. Ed. gr.	Chi Omega
[5]Stevenson, Eugene Maxwell	Centerville	LD 30+3	1112 High-p
[13]Stevenson,GeorgeHaydon	SanFrancisco	LD 15–19	Delta Kappa Epsilon
[12]Stevenson, Ruby Walser	Palo Alto	Hist. 117+9	840 Bryant-p
[12]Stevenson, William C. A.B., Stanford, 1922	Boise, Ida.	E.E. gr.	246 Encina
[14]Steward, Harry, Jr.	Los Angeles	LD 32–13	Phi Kappa Psi
Stewart, Donald Kenneth	Palo Alto	M.E. 154+59	311 Fulton-p
Stewart, Francis Samuel A.B., Stanford, 1923	Palo Alto	Chem. 2·178+12	418 Florence-p
[4]Stewart, Edward Lyndon B.S., Arizona, 1923	Tucson, Ariz.	Econ. gr.	20 Encina
Stewart, Holmes Richter	Palo Alto	LD 90+40	617 Waverley-p
Stewart, Hugh Leo Paul	Ambridge, Pa.	C.E. sp. 78–9	Delta Chi
[1]Stewart, Ingram Fordyce B.S., Ohio, 1917; A.M., Stanford, 1922	Palo Alto	Educ. gr.	617 Waverley-p
Stewart, Kenneth Norman	Eureka	Engl.-Jn. 126+60 Geol. gr.	8 Union
*[23]Stewart, L. Lincoln A.B., Stanford, 1914			

Stewart, Muriel	Phoenix, Ariz.	Pre-Med. 6·160+174	348 Roble
[1]Stewart, Paul Fisher A.B., Stanford, 1923	San Diego	Econ. 72·108+6	Phi Delta Theta
Stewart, William Blair B.A., Reed, 1921	Palo Alto	Econ. gr.	721 Waverley
Stichter, Genevieve Susan	Cupertino	LD 111+143	Cupertino-c
[5]Stickney, Edith P. A.B., Vassar, 1919	St. Paul, Minn.	Hist. gr.	Madroño
[12]Stikeman, Donald Frank	Santa Cruz	LD 96+41	45 Encina
[12]Stiles, Maxwell	Los Angeles	LD 25·32+3	448 Encina
Stillman, Freeman Linn	Odebolt, Ia.	LD 16·88+20	407Encina-Bx492,p
[4]Stirwalt, Ernest A.B., Michigan, 1911	Mesa, Ariz.	Math. gr.	Campus
Stockbridge, Glenn Henry	Los Angeles	LD 55+65	107 Encina
Stockton, Andrew B. A.B., Stanford, 1923	Grangeville, Ida.	Zool.-Med. 182+166	549Cowper-p
Stoddard, Harvey Charles	Oakland	M.E. 73·84+28	437 Encina
[23]Stollmack, Arthur T.	Hollywood	Law 94·26+23	402 Encina
[3]Stone, Gladys A.B., Southern California, 1922	Los Angeles	Econ. gr.	Madroño
Stone, John Bear	San Francisco	Chem. 133+49	1455 Webster-p
[4]Stone, Roma	Los Angeles	LD	Madroño
[4]Stone, William Samuel A.B., Illinois, 1919	Phoenix, Ariz.	Educ. gr.	Sigma Alpha Epsilon
Stoner, Robert Miley	Oakland	LD 44+0	128 Encina
Storey, A. Dean	Sacramento	LD 42–2	328 Encina
[1]Story, James Wright	Amarillo, Tex.	C.E.106·33+5	24Sequoia-Box483,p
[4]Stott,Katherine	NewWestminster,B.C.	LD sp.	365 Roble
[5]Strain, Harold Henry	Mayfield	Chem. 162+147	Mayfield-m
Stratton, Charles Cullen	Downey	LD 43+25	Alpha Tau Omega
[1]Straube, Herman William	Los Angeles	LD 65–8	Phi Kappa Sigma
Stray, George Rose A.B., Stanford, 1923	Campbell	M.E. 7·188+218	73 Sequoia
Street, Webster Finley	Ocean Beach	LD 47+25	118 Encina
Strickler, Dewey Loyal A.B., Stanford, 1922	Palo Alto	Law gr.	349 High-p
Strobel, Grace May	Hanford	Econ. 8·145+123	Sigma Kappa
[4]Stromquist, Fred E.	Mora, Minn.	LD sp.	243 Webster-p
Strong, Artemas Jacob	Santa Paula	Pre-Med. 131+95	SigmaAlphaEps.
Strong, Edward William	Gresham,Ore.	LD 112+129	55 Sequoia
[4]Strother, Sarah Elizabeth A.B., California, 1918	Fresno	Sch. Ed. gr.	321 Roble
[5]Stroup, Cranston LeRoy	Cleveland, O.	LD 82+35	1651 Webster-p

[5]Stroup, Russell Cartwright	Cleveland, O.	LD 87+38	1651 Webster-p
Strouse, Carolan Mathilde	Altadena	LD 18·96+130	110 Roble
[12]Strouse, Clarence Abraham	Altadena	Econ.-Law 83–15	215 Encina
Struble, Homer Pearson	Penryn	Med. gr.	2215 Buchanan, SF-sf
A.B., Stanford, 1922			
Stucky, Mary Ruth	Sparks, Nevada	LD 94+116	382 Roble
Sturm, Franz	Hoquiam, Wn.	Chem. 187+205	308 Encina
A.B., Stanford, 1923			
Sudden, Dorothy Rose	San Mateo	Hist. 45·137+51	Pi Beta Phi
A.B., Stanford, 1923			
Suffern, William Henry	Decatur, Ill.	LD 41+5	14 Cabrillo
Sullivan, Cletus S.	Santa Clara	Med. gr.	2201 Calif., SF-sf
A.B., Stanford, 1922			
[234]Sullivan, Nellie Blythe	Los Angeles	Psych. gr.	445 Homer
A.B., Southern California, 1917			
[5]Sullivan, Willard E.	So.SanFrancisco	Chem. gr.	19 Salvatierra
A.B., Stanford, 1922			
[12]Sult, Donovan Dorr	Guam, M.I.	LD 44–15	11 Salvatierra
Summers, David Selden	Tucson, Ariz.	LD 45·92+26	403 Encina
Summers, Frances Maude	San Jose	Hist. 87·74+36	Chi Omega
Summy, Archibald Peers	Long Beach	Econ. 104·77+9	350 Addison
A.B., Stanford, 1923			
Sumner, Charles Hawley	Palo Alto	LD 50+25	760 University-p
[5]Sutherland, Hugh Sanford	Los Angeles	Engl. 167+97	Kappa Alpha
Sutro, John Alfred	San Francisco	LD 44+3	228 Encina
Swabey, Clarence S.	Palo Alto	LD 133+47	1055 Cowper-p
Swabey, Marjorie Ruth	Palo Alto	Bot. 87·93+71	1055 Cowper-p
A.B., Stanford, 1923			
[12]Swacker, Gladys Grace	GrantsPass,Ore.	Sch. Ed. gr.	163 Roble
A.B., Stanford, 1922			
[1]Swain, Dorothy Muriel	Stanford Univ.	LD 59+20	10 Cabrillo
[23]Swan, Frederick Haviside	Berkeley	LD 20+1	Encina Gym
[12]Swanson, Morby C.	Gridley	LD 20–11	1020 Ramona-p
Swartz, Jacob Pierpont	Allentown, Pa.	Law 116–3	26 Sequoia
[5]Swayne, William Wager	Stanford Univ.	LD 119+0	Phi Kappa Psi
Swayze, Doris Christine	Hermiston,Ore.	LD 44+10	351 Roble
Sweeney, John Paul	Phoenix, Ariz.	Med. gr.	2401 Sacramento,SF-sf
A.B., Stanford, 1920			
Sweigert, Charles Francis	San Francisco	LD 90·47+52	219 Encina
[4]Swetman, Alice Pierson	Ellensburg,Wn.	Engl. gr.	Menlo Heights
B.A., Mt. Holyoke, 1913; M.A., Columbia, 1917			
[5]Swetman, Ralph Waldo	Ellensburg,Wn.	Educ. gr.	Menlo Heights
A.B., Columbia, 1917			
Swift, Howard Newman	Tokyo, Japan	LD 40·42+11	350 Encina

[12]Swinehart,Charles Rob't	Rochester,Ind.	LD 14–14	223SantaYnez, SM-sm
Swing, Horace Everett	San Bernardino	LD 89+33	Delta Tau Delta
[4]Swinnerton, Meltha I.	San Luis Obispo	LD ‡	555 Lytton-p
[4]Swithenbank, Grace M.	San Jose	Germ. gr.	86 Fox, SJ-sj
A.B., Stanford, 1921, A.M., 1922			
[4]Swoboda, Lois Manly	Palo Alto	LD 15+10	373 Channing-p
Sylva, Edward Nuku	Honolulu, T. H.	LD 45·49+12	804 Bryant-p
[5]Symonds, Henry Gardiner	Hinsdale,Ill.	Geol. 140+115	Kappa Sigma
[4]Sywulka, Julia	Visalia	Educ. ‡	415 Lytton-p
Taam, Wu K.	Canton, China	LD 92+29	Chinese Club
Tackabury, George W.	Hollywood	LD 4·46+22	Delta Upsilon
[4]Taff, Abby Leverett	Marfa, Tex.	Educ. gr.	628 Cowper-p
A.B., Arkansas, 1894			
Taft, Stanley Byron	Salinas	LD 34–1	34 Lasuen
Tainter, Maurice Lane	San Jose	Med. gr.	St.AlbansApts., SF-sf
Talavera,Florencio F.	LaPaz,Iloilo,P.I.	Zool. gr.	705 Cowper-p
A.B., Stanford, 1921, A.M., 1923			
[1]Talbert, Paul Houston	Ft. Worth, Tex.	Econ. 55·125+20	Sigma Chi
A.B., Stanford, 1923			
[5]Tamplin, Constance Almeda	Palo Alto	Pre-N. 24·100+78	659Middlefield-p
[23]Tamplin, William Ward	Palo Alto	Min. gr.	659 Middlefield-p
A.B., Stanford, 1922			
[12]Tan, Shen-Chwan	Anwhei, China	Chem. gr.	Chinese Club
B.S., National University, Peking, 1919			
[5]Tan, Shulin Lincoln	Shantung, China	Educ. gr.	Chinese Club
B.A., Pekin Government Teachers College, 1922			
[4]Tanner, Vasco Myron	St. George, U.	Engl. gr.	465 Hamilton
A.M., Utah, 1920			
[5]Tappenbeck, Hatto	Noordwyk, Holland	Germ. 90·84+31	451 Pope-p
Tashiro, Henry T.	San Gabriel	LD 11–17	Japanese Club
Tattersall, Kenneth L.	National City	Med. gr.	2229 Webster, SF-sf
A.B., Stanford, 1923			
Tauzer, Clarence Jaurgen	Santa Rosa	Law gr.	13 Encina
A.B., Stanford, 1922, J.D., 1923			
[1]Tayler, James D.	San Mateo	LD 36+6	Sigma Chi
[5]Taylor, Alvin V., Jr.	Salt Lake City, U.	Geol. 109·79+37	327 Encina
Taylor, Don Michael	East San Diego	M.E. 90·46+8	557 Encina
[5]Taylor, Dwight Warren	Los Angeles	Law 129+34	Alpha Tau Omega
[4]Taylor, Ethel	Corvallis, Ore.	Ger. gr.	339 Roble
A.B., Michigan, 1906			
[8]Taylor, Everett Ridley	Hollywood	LD 55+8	Laurel Court, MP
[1]Taylor, Frederick Rice	Tracy	LD 8–14	942 Ramona-p
[4]Taylor, Hazel D.	Astoria, Ore.	Sch. Ed. gr.	551 University
A.B., Pacific, 1915			

[5]Taylor, Howard Rice PortTownsend, Wn. Educ. gr. 18 Alvarado
A.B., Pacific, 1914; A.M., Stanford, 1923
Taylor, James Blackwell Los Angeles LD 49+54 265 Coleridge
[1]Taylor, James Ellsworth Los Angeles Econ. 108·73+54 11 Salvatierra
A.B., Stanford, 1923
[4]Taylor, Morris Peck Stanford Univ. Phys. 103·64+90 Kingscote
[12]Taylor, Quimby Whitley Los Angeles Chem. gr. 1305 Emerson
A.B., Stanford, 1922, Engineer, 1923
[12]Taylor, Richard Thurston Los Angeles Med. gr. Phi Kappa Psi
A.B., Stanford, 1922
[4]Taylor, Ruth Ida New Britain, Conn. LD sp. 302 Roble
[4]Taylor, Wallace Mathews Peoria, Ariz. Educ. ‡ 101 Pope-p
[1]Taylor, Thacher Hollywood LD 46–9 Delta Kappa Epsilon
Taylor, William Hayden Eagle Rock Engl. 135·46+8 LaurelC't,MP-mp
A.B., Stanford, 1923
[34]Taylor, Zenas Howland Stanley, N.D. Law gr. 305 Encina
A.B., Macalester, 1920
Teague, Milton McKevett Santa Paula LD 88+43 Sigma Alpha Epsilon
[5]Teeguarden, John M. Richmond, Ind. Econ. 43·81+12 612 Waverley-p
Tegner, Thelma Bodell Santa Monica Econ. 47·133+71 DeltaDeltaDelta
A.B., Stanford, 1923
[5]Telfer, Warren John Palo Alto Hist. gr. 353 Lytton-p
A.B., College of the Pacific, 1922
Tempel, William Edward Winnetka, Ill. Econ.15·141+114 LaurelCourt,MP
Templeton, Patrick Flint, Texas LD sp. 75+0 642 Webster-p
[12]Templeton, Robert Lyman Palo Alto Law gr. 535 Fulton-p
A.B., Stanford, 1921
[4]Ten Eyck, Warren Everett St. James, Mo. Min. gr. Sargent-s
B.S., Missouri, 1923
Teng, Chun-Keo Lanchow, China Psych. 67·46–5 Chinese Club
[8]Tennant, Harold Winslow Colusa LD 4·48+46 344 Encina
[5]Terman, Helen Stanford Univ. Econ. 130+103 9 Dolores
[4]Terry, Helen Virginia Columbus, O. Span. gr. 437 Kipling-p
B.A., Ohio State, 1919, M.A., 1922
Thayer, William Lyman Upland LD 110+101 45 Encina
Thede, Maurice Edwin Madera LD 81+22 Sigma Nu
Thomas, Arthur Blake Salt Lake City, U. Law 14·119+36 Phi Kappa Sigma
[4]Thomas, Earle Alling Pasadena Geol. 34·88+54 Sargent-s
Thomas, Victor Ellsworth Puente Phyl. 180+32 324 Union
A.B., Stanford, 1923
[13]Thompson, F. Gail Spring Coulee, Can. LD 18·60+78 Pi Beta Phi
Thompson, Frances Los Angeles LD43·59+11 KappaKappaGamma
Thompson, Frank Edw. Honolulu, T.H. LD 27–20 Theta Delta Chi
[234]Thompson, George W. Hollywood Hist. 20·90+19 Alpha Delta Phi

Thompson,Harlan Steele	Billings,Mont.	LD 108+50	Sigma Chi
[23]Thompson,HenryWebb	Glendale,Ariz.	LD 29+36	13 Salvatierra
Thompson, Kenneth Joseph	Red Bluff	LD 93+93	18 Encina
Thompson, Kenneth Wade	Fresno	LD 45+42	124 M'teDiable,SM-sm
Thompson, Louis Caryll	Los Angeles	Econ. 133+97	61 Sequoia
[4]Thompson, Margaret Ellen	Rome, Ga.	LD sp.	350 Roble
[4]Thompson, Mary Irene	Hollywood	Educ. ‡	255 Roble
Thomson, Frederick D.	Los Angeles	LD 48+17	Alpha Delta Phi
Thomson, William Lyon	Modesto	Pre-Clin. 12·169+74	113 Encina
[5]Thornton, Walter Daniel	San Jose	Econ. 150+128	243 N. 13th, SJ-sj
[23]Thorpe, Allene Warden	Lamar, Mo.	LD 13·32+20	335 Roble
[12]Thygeson, Mary	Palo Alto	LD 32+58	222 Kingsley-p
[5]Thygeson, Phillips	Palo Alto	Phyl. 129+112	222 Kingsley-p
Tibbe, Cuthbert Pierce	Oakland	Econ. 94·38+4	203 Union
[1]Tiffany, George Oliver	Durango, Colo.	LD 43–14	432 Hawthorne-p
[5]Tilton, Edward Glen	Salt Lake City, U.	LD 36·63+10	828 Cowper
[4]Tilton, Edwin Belmont	Adams Mills, O.	Educ. 135·23+17	601 Webster
Timby,Henry Edward	SaltLakeCity,U.	LD 80+7	Phi Kappa Sigma
Timmons, Colin Willis	Los Angeles	Chem. 93·29+34	21 Sequoia
Timpany, Charles Russell	Santa Clara	Chem. 179+116	426 Encina
Tingley, Mary E.	Colorado Sp'gs, Colo.	Hist. 106·90+119	226 Roble
A.B., Stanford, 1923			
[4]Tipton,Rice Silvester	E.LasVegas,N.M.	Sch. Ed. ‡	819 Newhall, SJ-sj
Titus, Henry Sherley	Riverside	M.E. 45·138+77	545 Encina
A.B., Stanford, 1923			
[4]Titus, Robert Chadwick	Berkeley	LD 82–16	321 Union
[5]Tobriner, Mathew Oscar	San Francisco	Econ. 155+195	519 Encina
Tod, Roy Stewart	Cloverdale	LD 46–25	236 Encina
Todd, Edwin Thayer	Palo Alto	M.E. 73·132+8	635 Homer-p
Todd, Harold E.	Hollywood	LD 71–11	Sigma Alpha Epsilon
[5]Todd, Harry Day	Palo Alto	Fr. 91+65	Sigma Nu
Tognazzini, Aileen V.	Santa Barbara	LD 41+17	354 Roble
Tognazzini, Roland E.	San Francisco	Law 125+18	Delta Tau Delta
Toland, John DeMoss	Los Angeles	LD 73–3	63 Sequoia
Toll, Marian Louise	San Diego	LD 49+29	288 Roble
Tolman, B. Hildegarde	Stanford Univ.	LD 35+9	San Juan Hill
[5]Tolman,Frank Bronson	Stanford Univ.	LD 85+36	San Juan Hill
[4]Toohey,Henry Farrell	KansasCity,Mo.	Educ. gr.	316 Union
A.B., Missouri, 1923			
[12]Toner, James Alexander	San Francisco	LD 73+4	Kappa Sigma
[4]Tople, Nina A.	St. John, Kans.	Engl. gr.	105 Roble
B.S., Kansas State Teachers College, 1923			

Torrey, Donald Max	Fresno	Hist. 143+140	247 Encina
[234]Towne, Elizabeth Bell	Evanston, Ill.	Chem. gr.	Madroño
A.B., Lawrence, 1922			
Trago, Eugene N.	Stanford Univ.	Econ. 54·79+31	Theta Delta Chi
Traugh, Audrey Minnie	Adin	LD 29+18	379 Roble
Trautz, Rose E. L.	Cottonwood	LD 49+15	176 Roble
Tremaine, Glendon Louis	Los Angeles	LD 15·73+0	Sigma Chi
[5]Tremaine, Harry Raymond	Los Angeles	Pol.S. 94·73+20	Sigma Chi
[1]Tressider, Don	Camp Curry	Med. gr.	1134 Jackson, SF-sf
A.B., Stanford, 1919			
Triest, Robert Joseph	Los Angeles	LD 86+16	63 Sequoia
[23]Triplett, Carl Eugene	Ceres	Econ. 108–21	215 Encina
Trippet, Oscar A., Jr.	Los Angeles	LD 66+16	Kappa Alpha
Tritle, Lloyd H.	Phoenix, Ariz.	Econ. 182+88	Delta Chi
A.B., Stanford, 1923			
True, Cecil Leslie	Spokane, Wn.	LD 42+13	427 Encina
Trueman,Harold Spencer	SanFrancisco	Med. gr.	2 Commonwealth,SF-sf
A.B., Stanford, 1920			
[5]Trummer, David Joseph	Hayward	M.E. 160+32	426 Encina
Tsao, Song-Ping	Anwhei, China	Econ. gr.	Chinese Club
A.B., National University of Peking, 1921			
Tucker, Norman Millett	Seattle, Wn.	LD 43–16	Phi Gamma Delta
Tucker, Orville H., Jr.	Prescott, Ariz.	LD 142+95	432 Encina
Tully, Charles Wallace	Palo Alto	LD 46+7	162 Bryant-p
Tully, Esther Carol	Modesto	Psych. 54·131+7	AlphaOmicronPi
A.B., Stanford, 1923			
[4]Tupper, Charles Ralph	Miami, Ariz.	Educ. gr.	211 S. 8th, SJ-sj
A.B., Stanford, 1913, A.M., 1923			
[12]Turneaure, F. Stewart	Madison, Wis.	Geol. gr.	20 Lasuen
B.S., Wisconsin, 1921			
Turner, Helen Tripp	Adelaida	LD 85+83	Delta Delta Delta
[134]Turner, Marion Esther	Adelaida	Engl. 122+142	Delta Delta Delta
Turner, Richard Reid	San Mateo	LD 7-7	Kappa Sigma
Tussing, Ford Marlow	Pasadena	Econ. 135+179	Delta Tau Delta
[5]Tuthill, David Bogert	Saratoga	Econ. 173+195	Delta Upsilon
[12]Tuthill, Helen	Portland, Ore.	Econ. 121+144	Delta Gamma
[1]Tyler, Arthur Robert	Pomona	C.E. 56·117–10	85 Sequoia
Tyroler, Frederic Nathan	Los Angeles	LD 46+55	62 Sequoia
Uhl, George Donald	Los Angeles	Engl. 48·85–7	451 Pope-p
[4]Underwood, Carl S.	Boise, Idaho	Educ. gr.	446 Hamilton-p
A.B., Illinois College, 1911			
Updegraff, George Gavin	Portland, Ore.	Law 106·39+12	315 Encina
[4]Upton, John Roland	Los Altos	LD sp.	Pine Lane, LA-la

Urner, Philip Summerfield	Mountain View	LD 93+120	Sigma Chi
[4]Urquhart, Bruce L.	Palo Alto	LD sp.	University Hotel-p
Vallat, Eugene H.	Santa Monica	LD 48+42	118 Encina
[1]Van Allen, Frank Carson	Visalia	LD 4·73+50	41 Encina
Van Amringe, John David	Geyserville	LD 37+15	248 Encina
Van Bebber, Alvin Wesley A.B., Stanford, 1923	Petaluma	Econ. 188+40	Alpha Kappa Lam.
Van de Carr, William D. B.	Hollywood	LD 49+22	400 Encina
[12]Vanderbaugh, Lyall Clyman	Madera	Econ. 10·107+54	AlphaKappaLam.
[1]Vander Horck, Fletcher L.	Taft	LD 19–11	27 Encina
Van Deusen, Dudley H.	Emmett, Idaho	LD 43+22	25 Salvatierra
Van Deusen, Theodore	Columbia, Mo.	Ed. G.A. 138+64	AlphaTauOmega
[5]Van Deventer, William C.	Long Beach	LD 43+50	319 Encina
[1]Van Fossen, Rena Rae B.A., Michigan, 1901	PawPaw, Mich.	Engl. gr.	415 Lytton-p
[23]Van Gundy, Kenneth W.	Haiku, T.H.	LD 67+15	561 Fuller, SJ-sj
Van Hook, Stuart Guillot	Santa Monica	LD 88+37	Phi Kappa Psi
Van Horn, Evelyn Adene	Denver, Colo.	LD 90+138	Alpha Omicron Pi
Van Keuren, Sidney Sutton	Los Angeles	C.E. 87·81+3	Beta Theta Pi
[5]Van Norden, Linda	Palo Alto	Cl.Lit.22·124+201	Kap.AlphaTheta
Van Oudenhove, Fernand Chem. Eng., University of Ghent, 1922	Sottegem, Belg.	Min. gr.	745 Cowper
[4]Van Valin, Earle Du Bois	San Mateo	Pre-Med. ‡	219½ Fountain, PG-pg
Van Vleck, Jule	St. Croix, Minn.	LD 46+29	309 Roble
Van Vorhis, Louis Graves	Corcoran	LD 43+6	Theta Xi
Varian, Russell Harrison	Halcyon	Phys. 99+47	28 Alvarado
Vaughan, Frances Robin	Palo Alto	LD 48+42	362 Roble
Vaughan, Samuel Edson A.B., Stanford, 1923	Stanford Univ.	M.E. 212+344	88 Sequoia
Vaughn, John Orren	Pasadena	Zool. 142+228	432 Encina
Verbarg, Dorothy D.	San Francisco	LD 51+85	278 Roble
[5]Vermilya, Harold Fay	Palo Alto	Econ. 72·100+4	656 Channing-p
[12]Vernon, William Kirk	Upland	LD ‡ 8–8	Delta Tau Delta
[4]Vertres, May A.B., Stanford, 1912	San Jacinto	Span. gr.	336 Roble
[6]Ver Veer, Emma Darke	LanLuisObispo	LD ‡	173 Roble
Vial, Robert Duncan	Portland, Ore.	M.E. 174+103	Phi Delta Theta
[4]Vigness, Paul Gerhardt B.A., St. Olaf, 1918	Palo Alto	Hist. gr.	634 Hamilton-p
Vinetz, Joseph Charles A.B., Occidental, 1922	Los Angeles	Med. gr.	211 Union
[5]Vinsonhaler, George R.	Stanford Univ.	LD sp. 95+4	233 Union

Voerge, Maurine Grace	Montreal, Can.	Span. gr.	304 Roble
A.B., Stanford, 1923			
[4]Voeller, Christian Carl	Evanston, Wyo.	Educ. gr.	325 Union
A.B., South Dakota, 1911, LL.B., 1912			
[4]Vopatek, Stephen H.	New Prague, Minn.	LD ‡	Campus
Vredenburgh, Ruth	Palo Alto	LD 45–6	180 Roble
Vrooman, Vernon Abram	Palo Alto	Law gr.	715 Bryant-p
B.A., Nevada, 1921; J.D., Stanford, 1923			
[1]Waful, Edward Everett, Jr.	Chicago, Ill.	Hist. 105·82+10	323 Union
A.B., Stanford, 1923			
Waggoner, Leslie Ray	Stockton	LD 42+19	1200 Bryant-p
Wainscott, Clinton Schenck	Peru, Ind.	Chem. gr.	314 Union
A.B., Franklin, 1921; A.B., Stanford, 1923			
[12]Waldraff, Paul Herman	San Mateo	Sch. Ed. gr.	RD 1, Box26, SM-sm
A.B., Stanford, 1910, Engineer, 1911			
Walker, Fletcher Loren, Jr.	Westwood	LD 41+18	Chi Psi
Walker, George Hall	Palo Alto	M.E. 157+21	209 Kipling-p
[13]Walker, John Carlton	Wilmington, Del.	LD 15+3	245 Encina
Walker, J. Franklin	Flagstaff, Ariz.	Educ. gr.	707 Addison-p
A.B., Albion, 1896; A.M., Arizona, 1916			
[12]Walker, Lee Fannin	Sebastopol	LD 74–10	233 Encina
Walker, Roland Douglas	Palo Alto	LD 33·46+40	310 Ramona-p
Walker, Theodore S.	Westwood	M.E. 60·122+88	Chi Psi
[23]Wallace, Bruce Weldon	Sacramento	LD 10–18	306 Encina
Wallace, Hugh H.	Auburn	LD 108+1	500 Encina
Wallace, Janet	Mexico City, Mexico	LD 46+52	135 Churchill-p
Wallace, John H., Jr.	Stanford Univ.	LD 52+16	208 Encina
[234]Wallace, William K.	San Jose	LD sp. 30+0	103 Melville-p
[134]Wallis, Lawrence B.	Palo Alto	Engl. gr.	201 Homer-p
A.B., Dartmouth, 1918; M.A., Harvard, 1921			
Walsh, Mona Desmond	Redwood City	Fr. 180+129	KappaKappaGamma
A.B., Stanford, 1923			
[23]Walsh, Walter Pernau	San Francisco	LD 30–2	435 Encina
[234]Walsh, William	Menlo Park	Cl. Lit. gr.	Box 46, MP-mp
B.A., National University of Ireland, 1918			
Walter, Russell Lincoln	Chicago, Ill.	Econ. 140+136	48 Sequoia
Walther, Theodore R.	San Diego	Chem. 180+103	Sigma Nu
A.B., Stanford, 1923			
[4]Walton, Esther	Long Beach	Educ. ‡	270 Roble
[4]Walton, Inez	Long Beach	Engl. gr.	167 Roble
A.B., Iowa State Teachers College, 1921			
[12]Wandling, Harry Francis	Cedarville	Educ. 67·113+31	334 Homer-p
A.B., Stanford, 1923			
Wankowski, Victor Otto	Hollywood	LD 48+33	302 Encina

Ward, Jean	Mill Valley	LD 45+21	315 Roble
Ward, Katherine A.B., Stanford, 1923	So. Pasadena	Cl. Lit. 186+190	347 Roble
[5]Ward, Murray Arthur	Los Angeles	Geol. 117+17	Kappa Sigma
[1]Wardman, Emily A.B., Stanford, 1923	Alhambra	Span. 109·77+19	Delta Gamma
[5]Ware, Margaret	Chico	Engl. 90·36+57	264 Roble
[4]Warner, Bernice B.S., Chicago, 1920	San Francisco	Chem. gr.	260 Roble
[13]Warner, Hal Fred	Los Angeles	LD ‡ 45–11	Phi Kappa Psi
Warner, James Prentice	Spokane, Wn.	Law 100·77+1	42 Encina
[2]Warnock, Archibald W. A.B., Stanford, 1918	Palo Alto	Med. gr.	2229 Webster, SF-sf
[124]Warren, Walter M. X. A.B., Stanford, 1922	Stanford Univ.	Econ. gr.	55 Sequoia
[1]Warren, William Morley	Datil, N. M.	LD 35–32	Sigma Chi
Warrington, Peirce E.	Sacramento	LD 51+53	109 Encina
Wasson, George F.	Salt Lake City, U.	LD 46+24	Phi Kappa Sigma
Wasson, Virginia F. A.B., Stanford, 1923	Watsonville	Engl. gr.	247 Roble
[3]Watanabe, Manjiro Imperial University of Tohoku, 1916	Sendai, Japan	Geol. gr.	311 Middlefield-p
Waterhouse, Edson P.	San Francisco	LD 38–16	Beta Theta Pi
Waterman, Edward Charles A.B., Stanford, 1923	Palo Alto	M.E. 185+85	567 Lytton-p
Waterman, Joseph C.	San Jose	LD 141+112	316 Encina
Waters, Max Archie	Chico	LD 53·46+22	533 Middlefield-p
[4]Watson, Lella B. V. A.M., Kansas, 1915	Santa Ana	Fr. gr.	Madroño
Watson, Margaret Eva	Palo Alto	LD 86+42	1400 Webster-p
[4]Watson, Mary Stella A.B., Texas, 1915	Ada, Okla.	Educ. gr.	334 Roble
Watt, Geraldine E.	San Francisco	Hist. 128+88	Pi Beta Phi
Watt, Roland George	San Francisco	LD 46+12	Beta Theta Pi
Wattenberger, Norton E.	Palo Alto	LD 85+8	234 Fulton-p
Watters, Hallie A.B., Stanford, 1922, A.M., 1923	Palo Alto	Cl. Lit. gr.	633 Channing-p
[1]Watters, Millard Norman A.B., Stanford, 1923	Los Angeles	Pol. S. 26·156+6	Encina
Watterson, Jerome Wilfred	Bishop	Econ. 135+41	436 Encina
Watterson, Whittier C.	Bishop	LD 134+63	436 Encina
[12]Wayland, Charles Rucker A.B., Stanford, 1922, J.D., 1923	Palo Alto	Law gr.	1319 Tasso-p
Wayte, Paul Henry	Patton	LD 48+8	444 Encina

[4]Wear, Margaret Fresno Educ. 90·41+67 281 Addison
[5]Weaver, Clarence Eugene StanfordUniv. Phys. gr. Amherst st., Mayfield
A.B., Stanford, 1922
[1]Webb, DeWitt Clinton Stanford Univ. LD 9·84+31
[4]Webber, Benjamin Revitt Nada, Ariz. LD sp. 112 Encina
[4]Webster, William J. Spencer, Wyo. LD 141 Encina
Wedgwood,GeorgeWarren Gooding,Ida. Chem. 121·40+11 SigmaAlphaEps.
Weichselfelder, Marguerite Palo Alto LD 6·116+146 456 Ruthven-p
Weigel, Stanley Alexander Palo Alto LD 51+55 428 Channing-p
Weightman, John Wallace Rivera Econ. 95·86+26 318 Union
A.B., Stanford, 1923
Weiss, Marie J. Stockton LD 93+186 229 Roble
[12]Weissenberg, Chas. Anezaltenango,Guat. LD 35–22 707 Bryant
[4]Weithoff, Valford E. Tucson, Ariz. LD sp. Sigma Alpha Epsilon
Welch, Eleanor Elizabeth Alta Loma LD 45+2 154 Roble
[2]Welch, Raymond Marvin Alta Loma Econ. 123+98 228 Union
[4]Welch, Sidney Hall Redondo Beach LD 23–25 304 Union
[4]Welch, Theodosia Elsberry, Mo. LD‡ 100Grand,PacificGrove-pg
Welch, Whiting San Francisco LD 41–6 Delta Kappa Epsilon
[12]Welles, Arthur Thomas, Jr. Pasadena LD 17–22 475 Forest-p
Wellington, Barbara Ann San Francisco LD 58+11 Kappa Kappa Gamma
Wells, Clinton Fisk Mayfield Econ. gr. 141 Amherst, M-m
A.B., Stanford 1920, A.M., 1920
Wells, Edward E., Jr. Oakland LD ‡ 72+1 33 Sequoia
[5]Wells, Edwin Adams Palo Alto Educ. gr. 331 Lincoln
A.B., Stanford, 1921
[5]Wells, Harrington Stockton Zool. gr. 315 Everett-p
A.B., Stanford, 1923
Wells, Loton Dutreux San Francisco LD 7·132+159 21 Encina
[1]Wells, Mildred In de B. Stanford Univ. Sch. Ed. gr. 331 Lincoln
A.B., Stanford, 1922
Wells, William Bruce San Francisco LD 60+27 21 Encina
[12]Welsh, Norris Lawrence Los Angeles Econ. 181+86 Alpha Sigma Phi
A.B., Stanford, 1923
[4]Welty, Howard O. Oakland Educ. 135·34+49
[4]Wenck, Ida Lucy Richmond, Minn. LD sp. 358 Roble
Wenrick, Howard Pulver Palo Alto LD 113+38 87 Sequoia
[4]Wenzel, Robert Nicolas Palo Alto Chem. gr. 1112 Ramona-p
A.B., Stanford, 1916, Engineer, 1917
[1]West, Franklin Gordon Stanford Univ. Law gr 429 Encina
A.B., Stanford, 1923, J.D., 1923
West, Thomas Hume Santa Ana LD 94+39 65 Sequoia
[23]Westall, Lucy Adele Sierra City LD 15·30+23 339 Emerson-p

Westerfield, Wanda	Riverside	LD 39+24	216 Roble
Weston, Anita Weltha	Palo Alto	LD 94+12	242 Middlefield-p
Wheat, Gilbert Collins	Los Angeles	LD 96+86	Delta Kappa Epsilon
[14]Wheate, Lawrence S.	San Francisco	LD 11–16	Base Hospital-p
[5]Wheaton, Frederick S.	San Diego	Econ. 32·140+73	Phi Delta Theta
[4]Wheeler, Horace A.B., Stanford, 1921	Pueblo, Colo.	Chem. gr.	18 Encina
Whisler, Hugh Levan	Portland, Ore.	LD 87+76	25 Sequoia
Whitaker, Douglas Merritt	StanfordUniv.	LD 89+84	9 Alvarado
Whitaker, Leslie Stow A.B., College of the Pacific, 1922	San Jose	Med. gr.	720 S. 3rd, SJ-sj
[3]Whitaker, Louise Merritt	StanfordUniv.	LD 13+22	9 Alvarado
Whitcomb, Thayer W.	Fessenden, N.D.	Chem. 64·97+121	315 Encina
White, Albert Cosad	Oakland	LD 10·113+54	138 Encina
White, Allen Cromwell	CampLewis,Wn.	LD 98+121	336 Encina
[5]White, Charles Benjamin	Pasadena	Econ.-Law 122+31	432 Encina
[5]White, Clyde W. Ph.B., Ohio, 1909; A.M., Stanford, 1923	New Concord, O.	Educ. gr.	421 Cowper-p
White, Eugene Loren	Los Angeles	LD 41–2	Phi Kappa Sigma
White, Harold LeRoy	Bakersfield	LD 94+57	328 Encina
[4]White, Harry Dexter	Los Altos	Pol. S. ‡	Los Altos-la
[4]White, Hubert B. A.B., Iowa State Teachers College, 1921	Cedar Falls, Ia.	Educ. gr.	233 Union
White, John Robert, III	Glendale	LD 40·42+2	Sigma Chi
[4]White, Lyda Arnold A.B., Washington, 1923	Seattle, Wn.	Nurs. gr.	184 Roble
[5]White, Margaret Emily	Palo Alto	Zool. 152+55	915 Waverley-p
White, Robert Jenkins	Los Angeles	LD 86+14	Alpha Tau Omega
[4]White, Sarah Elizabeth	Bakersfield	LD ‡	269 Roble
[4]White, Snow	Selma	LD ‡	302 Roble
Whitehead, Seward Samuel	RedwoodCity	LD 48–2	Theta Xi
Whitehouse, Stuart Wm. A.B., Stanford, 1923	WallaWalla,Wn.	Law 118·54+26	302 Union
Whitfield, Glenn Everett	Rosalia, Wn.	LD 45+57	Delta Chi
Whitmore, Max Montgomery	Nephi, U.	LD 75+26	Kappa Alpha
[12]Whitney, Harold Benj.	Wichita, Kans.	Econ. 94·36+40	650 Waverley-p
Whitney, Helen Mason	Berkeley	Law 120+58	Alpha Phi
[12]Whittemore, James A.	Palo Alto	Geol. 135+8	317 Alma-p
Whittier, Florence Oliver A.B., Stanford, 1921	Menlo Park	Chem. gr.	Santa Cruz ave., MP
[4]Whittlesey, Theodosia E. A.B., Chicago, 1902	San Francisco	Cl.Lit.gr.	Coll.Sac.Heart,MP-mp
[18]Wiberg, Harry Austin	Phoenix, Ariz.	LD 54–19	Theta Delta Chi

Wicht, Harold L. P.	Chico	LD 11·40+17	Menlo Heights
Widaman, Perry Davisson	Los Angeles	LD 102+20	Alpha Delta Phi
Widaman, Wendell Oliver	Los Angeles	LD 44+31	107 Encina
Widmann,Chas.A.	Guatamela City,Guat.	LD 43+32	475 Forest-p
[4]Wieden, August	Tucson, Ariz.	LD ‡	326 Union
Wiedmann, Milton Lawrence	Oakland	LD 53+50	335 Lytton-p
Wight, Joseph Edward	Palo Alto	M.E. 113·39+21	115C Alma
[5]Wilber, Louise Myrtle A.B., Stanford, 1923	San Francisco	Econ. gr.	152 Roble
Wilbur, Blake Colburn A.B., Stanford, 1923	Stanford Univ.	Med. gr.	2319 Webster, SF-sf
Wilbur, Dwight Locke A.B., Stanford, 1923	Stanford Univ.	Zool.-Med. 182+254	72 Sequoia
[3]Wilbur, Lois Proctor	Stanford Univ.	LD 15+5	374 Roble
[5]Wilbur, Paul Curtis	San Francisco	Chem. 162+185	226 Union
Wilcox, Chester Arthur A.B., Stanford, 1923	Palo Alto	E.E. gr.	362 Channing-p
[4]Wildanger, Derrill F.	Elk Grove	Pre-Med. ‡	207 Roble
[1]Wilder, Floyd William	Stanford Univ.	Econ. 38–12	418 Ramona
[13]Wiles, George Webster	Stanford Univ.	C.E. 4·119+89	203 Union
[124]Wiley, Elton H.	Palo Alto	Econ. sp. 42+4	120 Kingsley-p
Wilhelmson, Carl	San Francisco	Engl.-Jn. sp. 156+176	46 Encina
Wilkey, James Roberts	San Francisco	LD 29+0	31 Sequoia
Wilkie, Chas. Daniels	Wheeling,W.Va.	Econ. 128+22	1832 Cowper-p
Willard, James Allan	Oakland	LD ‡ 29–11	231 Encina
[24]Williams, Alta	Ainsworth, Neb.	Psych. 90·15+18	5 Cabrillo
Williams, Bernice Marion	SanFrancisco	LD 43–10	322 Roble
Williams, Byron D.	Los Angeles	LD 45+35	347 Encina
[234]Williams,Dorothy Evelyn	SanFrancisco	LD 74+19	Pi Beta Phi
Williams, Emeline Helmbold	Palo Alto	LD 91+103	Alpha Phi
Williams, Eva Mae	Redlands	Engl. 52·100+81	200 Roble
Williams, Florence Iola	Madera	Econ. 47·95+58	Pi Beta Phi
Williams, Frances Harriet A.B., Stanford, 1923	Portland, Ore.	Hist.-Jn. 4·176+183	252 Roble
[12]Williams, Gerald Arthur	Calexico	LD 107–15	50 Encina
[5]Williams, Gordon Harry	Quincy, Ill.	LD 30+0	Alpha Delta Phi
[23]Williams, Gwladys Louise M.A., California, 1922	Berkeley	Span. gr.	Madroño
Williams, Harry A.	Santa Clara	LD 51·49+60	1146 Lincoln, SC-sc
[12]Williams, John Austin	Hollywood	LD 28+6	Delta Kappa Epsilon
Williams, John Sheldon, Jr.	San Jose	LD 94+84	875 Plaza Dr., SJ-sj
[12]Williams, Marjorie Curry	Palo Alto	Engl. 117·28+25	552 Kellogg-p

Williams, Thos. Bertram A.B., Stanford, 1921	San Francisco	Med. gr.	Y.M.C.A., SF-sf
[4]Williams, William Gale	Tucson, Ariz.	LD sp.	Mayfield-p
[1]Williams, William Lloyd A.B., Stanford, 1923	Oakland	M.E. 46·137+62	Theta Xi
[34]Williamson, Oscar B. B.S., Oregon, 1923	Stanford Univ.	Educ. gr.	227 Union
[5]Williamson, Roy Franklin	Sebastopol	Econ. 154+48	Delta Kappa Eps.
[4]Williamson, Theresa G. A.B., Michigan, 1897, A.M., 1901	Santa Barbara	Bot. gr.	306 Roble
Williard, Henry Ormiston	San Jose	Law 30·117–7	99 S. 11th, SJ-sj
[5]Willis, Frances Caroline	Redlands	Engl. 81·92+103	Madroño
Willis, Frances Elizabeth A.B., Stanford, 1920, Ph.D., 1923	Redlands	Pol. S. gr.	Madroño
Willis, Henry James	Redlands	LD 63+37	141 Encina
Willis, Henry Paul	Wichita, Kans.	LD 94+90	52 Sequoia
[12]Willis, Lawrie Overton	Mountain View	LD 26+7	Box 447,MV-mv
[4]Willis, Robin A.B., Stanford, 1920, A.M., 1922	Stanford Univ.	Geol. gr.	5 Lasuen
[12]Williston, Preston Eugene	Gridley	LD sp. 51+38	759 Middlefield
Willits, John Metts	Palo Alto	LD 8·106+163	221 Alma-p
[5]Willoughby,Raymond R. B.S., Massachusetts Agricultural College, 1919; A.M., Stanford, 1923	StanfordUniv.	Educ. gr.	112 Encina
[4]Wilson, Charles Jasper, Jr.	Woodlake	LD	21 Encina
Wilson, Dorothy Whedon A.B., Stanford, 1923	Los Angeles	Engl. 9·176+61	Chi Omega
Wilson, Ernest Archibald LL.B., Stanford, 1923	Hollister	Law gr.	509 Encina
[23]Wilson, Francis Eugene	Stanford Univ.	Econ. 20·112+55	PhiGammaDelta
Wilson, George Howard	Los Angeles	Econ. 143+147	Alpha Delta Phi
Wilson, Gerard George A.B., Stanford, 1922	San Jose	E.E. gr.	419 Encina
[1]Wilson, Harold	San Jose	LD 12+17	419 Encina
[5]Wilson, Ira Carrell B.S., Peabody College for Teachers, 1918; A.M., Stanford 1923	Ashland, Ore.	Educ. gr.	303 Union
[34]Wilson, John Willard A.B., Colorado State Teachers College, 1922	Hazelton, Ida.	Educ. gr.	
Wilson, Louise Ede	Palo Alto	LD 44+36	860 University-p
[4]Wilson, Lucille Mortimer	Palo Alto	LD	459 Ruthven-p
[3]Wilson, Martel D.	Stockton	LD 38–12	Sigma Alpha Epsilon
[4]Wilson, Maud E. B.L., California, 1908, M.A., 1917	Oakland	Sch. Ed. gr.	620 Waverley-p
Wilson, Ruth Eleanor A.B., Stanford, 1923	Hebron, Neb.	Engl. 183+116	209 Roble

Wilson, Wendell Rogers	Vallejo	C.E. 162+107	231 Encina
Wimmer, Shirley D.	Salt Lake City, U.	Med. gr.	2201 Calif., SF-sf
A.B., Stanford, 1922			
[234]Winchester, Warren W.	Franklin, Ind.	Chem. gr.	314 Union
A.B., Franklin, 1920			
[12]Windish, Mollie	New York, N.Y.	Engl. 180+116	281 Roble
A.B., Stanford, 1923			
Windsor, Gerald P., Jr.	Los Angeles	LD 38+4	347 Encina
[34]Windt, Bernice	San Francisco	LD 16+10	366 Roble
Wingard, Francis Eugene	Orange Cove	LD 43+8	Theta Xi
Wingard, Glenn Adrian	Orange Cove	Econ. gr.	Theta Xi
A.B., Stanford, 1923			
[34]Wingate, Harold Birkmyre	Piedmont	LD 15–1	353 Encina
[1]Wingood, Norma E.	Santa Ana	Med. gr.	2236 Pacific, SF-sf
A.B., Stanford, 1921			
Winkler, Kemp Julius	Los Angeles	Engl. 88·63+16	39 Encina
[12]Winn, Montgomery E.	Warsaw, Ky.	Pol.S.18·162+126	AlphaSigmaPhi
A.B., Stanford, 1923			
Winter, Arthur F.	Chinook, Mont.	LD sp. 8·69+8	536 Hamilton-p
[4]Winterbotham, Edward L.	Riverside	LD	329 Union
Wisnom, Robert Freeman	San Mateo	Econ. 192+198	Chi Psi
A.B., Stanford, 1923			
[5]Witherbee, Donald	Los Angeles	Econ. 175+19	Kappa Sigma
[5]Wittenberg, Howard E.	TerreHaute,Ind.	Econ. 115+157	Phi Kappa Psi
Wittenberg, Ralph K.	TerreHaute,Ind.	LD 43+9	Phi Kappa Psi
Wocker, Hermine E.	San Francisco	LD 91+89	Alpha Phi
Wocker, Mary Isabel	San Francisco	Chem. 63·119+14	Alpha Phi
A.B., Stanford, 1923			
[12]Woerner, Sarah Edith	Palo Alto	Hist. gr.	453 Hawthorne-p
A.B., Stanford, 1923			
[5]Wolf, Paul Theodore	San Francisco	Law 83+41	234 Encina
[12]Wolfe, Frank James	Alamogordo,N.M.	Econ. 84·28+25	635 Bryant
Wolfe, Franklin DeKalb, Jr.	Fresno	LD 50–16	Sigma Nu
Wong, Hung Chau	San Francisco	LD 106+33	Chinese Club
Wong, Tsz Sun	China	LD 30–21	Chinese Club
[5]Wood, Carleton Ball	Sonora	Law 129+27	421 Encina
Wood, David Alvra	Gooding, Ida.	LD 45+19	49 Sequoia
Wood, Edward Langstroth	Denver,Colo.	Law gr.	Sigma Chi
A.B., Stanford, 1921, J.D., 1923			
Wood, Francis H.	Spencer, Ida.	LD 49–17	Phi Kappa Psi
Wood, Granville	Mayfield	Med. gr.	Mayfield-m
A.B., Stanford, 1920			
[23]Wood, Henry Carroll	Palo Alto	LD 27–1	131 Lytton-p

[4]Wood, Margaret A.B., Stanford, 1920	Los Angeles	Engl. gr.	227 Roble
[4]Wooddell, Charles Edward	Tucson, Ariz.	LD ‡	39 Encina
[23]Woodhead, Anne Elizabeth	Los Angeles	Econ. 45·107+25	Alpha Phi
[12]Woodhead, Orton Clifford	Chino	Econ. ‡ 17–20	215 Encina
[5]Woodruff, Virginia May A.B., Stanford, 1923	Salt Lake City, U.	Engl. gr.	Gamma Phi Beta
Woods, Vinton Tyrrell	Los Angeles	Law 88·45+27	Laurel C't, MP-mp
[23]Woodward, Henry Teynham	Pt. Loma	LD 61·27+20	30 Sequoia
[3]Woodward, Tyler Francis	Los Angeles	Econ. 113+7	Delta Kappa Epsilon
Woolf, Henriette K.	Greeley, Colo.	LD 94+107	181 Roble
Worden, John Bairsto	San Francisco	LD 40+5	352 Encina
[12]Worden, Norton Earl	Glendive, Mont.	LD 28–33	14 Sequoia
[4]Workman, Hannah M.	Mare Island	LD sp.	178 Roble
Worrell, Harriet Elizabeth A.B., Stanford, 1923	Ogden, Pa.	Pol. S. 135·47+27	Madroño
[34]Worswick, Mildred	San Jose	LD 15+11	266 Roble
[1]Worth, Lloyd Foster	San Diego	LD 3–13	151 Churchill
Wrenn, Heaton Luse A.B., Stanford, 1922	Burlingame	Law gr.	Phi Delta Theta
Wright, Andrew Curtis	Palo Alto	LD 122+67	765 Channing-p
Wright, Conrad Payling A.B., Oxford, 1920	London, Eng.	Food Res. gr.	211 Melville-p
Wright, Doris Alberta	San Diego	Engl. 90·48+34	227 Roble
Wright, George Frederic	Centerville	M.E. 40–17	Kappa Alpha
[5]Wright, Glenna Alice	Santa Ana	Hist. 78·95+49	201 Roble
[1]Wright, Harold Haven A.B., Stanford, 1923	Manila, P.I.	Geol. 46·150+69	221 Encina
Wright, James Chalmers	Riverside	LD 96+61	503 Encina
Wright, Julian Chapman	Houston, Tex.	LD 80+2	Palo Alto Hotel-p
[4]Wright, Lena A.	Rockford, Ill.	LD sp.	335 Roble
Wright, Milton Edgar A.B., Stanford, 1922	San Jose	Law gr.	217 N. 1st, SJ-sj
[3]Wright, Norma Knowles	Los Angeles	LD 11–7	360 Roble
[4]Wright, Ralph Wesley	San Jose	LD ‡	Phi Delta Theta
[5]Wright, Raymond Orville	Palo Alto	Econ. ‡ 58–8	1752 Emerson-p
[5]Wright, Robert Edward	Manila, P.I.	LD 76+12	221 Encina
Wright, Robert Franklin A.B., Stanford, 1923	San Jose	M.E. 180+91	311 Union
Wright, Samuel V.	San Luis Obispo	Bot. 106+180	421 Oberlin, M-m
Wright, Selden Stuart	Palo Alto	LD 32–20	Phi Kappa Sigma
Wright, William Beatty	Palo Alto	LD 87–7	Phi Kappa Sigma
Wright, William Edward	Stockton	Law 132+152	Theta Chi

Wright, William Lawton	Omaha, Neb.	LD 69+23	Kappa Alpha
Wright, William Quinby, Jr.	Sausalito	LD 103+115	31 Sequoia
Wyatt, Bradley William A.B., Stanford, 1923	Long Beach	C.E. 7·173+53	Theta Xi
[1]van Wyck, Cecil van A.	The Hague,Hol.	M.E. 119–6	Delta Upsilon
[134]Wylie, Maurice Montieth	Denver,Colo.	LD 29+7	246 Encina
[4]Wynne, Margaret Ogier A.B., Stanford, 1908	Berkeley	Sch. Ed. gr.	611 Waverley-p
Yamasaki, Seizi	Kagoshima, Japan	Econ. 110+46	Japanese Club
[5]Yang, Liang-Kung National University of Pekin	Anwhei, China	Educ. gr.	Chinese Club
[23]Yates, Robert Clinton	San Francisco	LD 14–10	222 Encina
[12]Yee, Yap Tuck	Honolulu, T.H.	LD 12+12	Chinese Club
[4]Yokum, Carl Madison	Tucson, Ariz.	Law sp.	481 Lytton-p
[4]York, George Kenneth	Tucson, Ariz.	LD sp.	1121 Bryant-p
Yost, Russell Thorpe	Stockton	Econ. 127+128	232 Encina
[234]Young, Blanche A.B., Stanford, 1922	Weaverville	Engl. gr.	451 Pope-p
Young, Charles Ainslee	Coronado	LD 99–5	60 Sequoia
[134]Young, Clarence Whiford	Palo Alto	LD 43·32+29	222 Fulton-p
Young, Dwight Dunham A.B., Stanford, 1923	Fresno	Pre-Clin. 182+33	Alpha Sig. Phi
Young, Evert Hale	Sacramento	LD 5·49+20	Phi Delta Theta
[12]Young, Forest Herbert	Billings, Mont.	C.E. sp. 34–35	628 Gilman-p
[4]Young, Fred Garfield A.B., Swarthmore, 1913	San Luis Obispo	Hist. gr.	Phi Delta Theta
[23]Young, Lloyd Coleman, Jr.	Los Angeles	LD 23–24	Delta Kappa Epsilon
Young, Sarah Adele B.A., Occidental, 1919	Los Angeles	Hist. gr.	161 Roble
[4]Young, Virna May	San Francisco	LD sp.	316 Roble
Young, Wilmer Wheelon A.B., Stanford, 1923	San Jose	M.E. 182+56	204 Encina
[5]Younglove, Howard Phillips	San Diego	Econ. 172+12	Beta Theta Pi
[23]Younglove, Margaret J. A.B., Stanford, 1923	Riverside	Sch. Ed. gr.	Pi Beta Phi
[4]Younkin, Daniel Garfield	Tucson, Ariz.	Educ. ‡ 18+9	105 Encina
[23]Zaches, John Alexander	Seaside	LD 25–5	303 Encina
[1]Zacho, Axel	Viborg, Denmark	Ger. ‡	541 Seale-p
Zandmer, Solis Myron A.B., Stanford, 1921	Los Angeles	Min. gr.	427 Encina
[5]Zane, Margaret Coleman	Woodside	Econ. 175+15	Kappa Alpha Theta
[2]Zane, Simeon Lessard	Eureka	LD 57–18	Phi Delta Theta
Zelhart, George Edgar	Selma	M.E. ‡ 58–25	321 Union

Ziller, Madeline Veronica	Cloverdale	Hist. 117+2	238 Roble
[4]Zimmerli, Elizabeth K.	Palo Alto	LD ‡	151 Cowper-p
[12]Zimmerman,C.Gaylord	Hiawatha,Kans.	LD 27+3	240 Bryant-p
[23]Zobelein, Richard George	Los Angeles	LD 19–11	539 Encina
Zschokke, Elsbeth E.	Palo Alto	LD 80+35	526 Forest-p
[12]Zuttermeister,MarionB.	Richmond,Ind.	LD ‡ 9–15	565 Hamilton-p

SUMMARIES

OFFICERS

Trustees		15
Academic Council—rank of		
Professor	103	
Associate Professor	45	
Assistant Professor	27	
Total (less 4 absent on leave)		171
Other Teaching and Administrative Officers—rank of		
Emeritus Professor	11	
Clinical Professor	8	
Associate Clinical Professor	10	
Assistant Professor	17	
Assistant Clinical Professor	17	
Athletic Directors and Coaches	7	
Lecturer	22	
Instructor	39	
Clinical Instructor	33	
Investigator	1	
Administrative Officer	26	
Associate	3	
Total (less 3 absent on leave)		191
Assistants		
Instruction and Research	62	
Administration	82	
Medical School	62	
Library	33	
Technical	51	
Total		290
Grand Total		667

STUDENTS

	Autumn	Winter	Spring	Summer	For the Year
Graduates	420	446	436	365	784
Undergraduates	2211	2114	2017	558	2597
Special Students	60	53	48	79	122
Totals	2691	2613	2501	1002	3503

By Major Subjects

	Graduate	Undergraduate	Special	Total
Anatomy	—	—	—	—
Applied Mathematics	—	2	—	2
Bacteriology and Experimental Pathology	1	5	—	6
Biology, School of	—	2	—	2
Botany	7	13	—	20
Chemistry	53	72	1	126
Classical Literature	18	12	—	30
Economics	40	300	6	346
Education—School of	50	3	—	53
—Division of	126	30	—	156
—Graphic Art	7	16	—	23
Engineering—Civil	6	43	3	52
—Electrical	15	—	—	15
—Mechanical	5	107	3	115
English	59	71	2	132
Food Research	4	—	—	4
Geology	30	78	1	109
Germanic Languages	5	3	—	8
History	40	65	1	106
Law	84	‡163	3	250
Lower Division	—	1426	101	1527
Mathematics	11	12	—	23
Medicine	102	†37	—	139
Military Science and Tactics	—	1	—	1
Mining and Metallurgy	25	19	1	45
Philosophy	2	9	—	11
Physics	6	6	—	12
Physiology	5	15	—	20
Political Science	11	24	—	35
Pre-Clinical	—	23	—	23
Pre-Medical	3	26	—	29
Pre-Nursing	1	2	—	3
Psychology	18	12	—	30
Romanic Languages—French	20	28	—	48
—Spanish	23	14	—	37
Zoology	5	13	—	18
—Entomology	3	5	—	8

† Including 4 Physiology majors, 3 Bacteriology majors, 1 Chemistry major, 6 Zoology majors, and 23 Pre-Clinical majors.

‡ Including 16 Economics majors, 3 History majors, and 5 Political Science majors, taking two or more courses in Law.

By Residence—For the Year

California	2546	Nebraska	16	Arkansas	2
Arizona	95	New Mexico	16		
Washington	90	North Dakota	14	Holland	2
Oregon	83	Japan	13	India	2
Utah	60	Wisconsin	13	Louisiana	2
Idaho	55	Massachusetts	11	Mexico	2
Illinois	34	Philippine Islands	9	New Hampshire	2
Texas	30	Wyoming	8	North Carolina	2
Montana	29	Belgium	6	Australia	2
New York	25	New Jersey	6	Delaware	1
Ohio	24	Washington, D. C.	6	Florida	1
Kansas	23	Central America	6	Georgia	1
Indiana	22	Connecticut	5	Greece	1
Iowa	22	England	5	Guam	1
Missouri	22	Maine	5	Peru	1
Pennsylvania	22	Mississippi	5	Porto Rico	1
Hawaii	21	Alaska	4	Rhode Island	1
Nevada	21	Maryland	4	South America	1
Canada	18	Kentucky	3	South Carolina	1
Minnesota	18	Russia	3	Tennessee	1
Oklahoma	17	Virginia	3		
China	17	West Virginia	3	Total	3503
Michigan	16	Alabama	2		

ALUMNI ASSOCIATION

[Organized June 15, 1892]

CONSTITUTION

(As amended, 1908–21)

IN order to promote the interests of the University, to secure unity among its graduates, and to foster an attachment to our *Alma Mater,* we do hereby constitute ourselves an association to be known as the Alumni Association of the Leland Stanford Junior University.

I. MEMBERSHIP

1. All persons who have received a degree from the Stanford University are members of this Association.

2. All former students of Stanford University are associate members of this Association and shall have all rights and privileges of membership.

3. All members of the Faculty are honorary members of this Association.

II. OFFICERS

1. The officers of this Association shall be: (1) a President; (2) a Vice-President; (3) a Secretary-Treasurer; (4) an Executive Committee consisting of the Secretary-Treasurer and four other elected members, one of whom shall be designated as Chairman; and (5) an Advisory Board, consisting of the President, the Secretary-Treasurer, one representative elected by the graduating class for the term of one year, and nine elected members who shall be graduates of five years' standing, and who shall be elected for three-year terms. . . . The Advisory Board shall elect its President and Secretary.

2. All other officers shall serve for one year or until their successors are elected.

III. DUTIES OF OFFICERS

1. It shall be the duty of the President to preside at all business meetings of the Association, to deliver the President's address on Alumni Day, and to perform such other duties as usually belong to his office.

2. It shall be the duty of the Vice-President to preside in the absence of the President and to perform the other duties belonging to his office.

3. It shall be the duty of the Secretary-Treasurer to keep accurate

minutes of the meetings of the Association and to act as Secretary of the Executive Committee, of which he shall be a member.

4. It shall also be the duty of the Secretary-Treasurer to have charge of the collection and disbursement of the funds of the Association.

5. The Secretary-Treasurer shall be allowed ten per cent of all dues or assessments collected, as compensation for his services.

6. It shall be the duty of the Executive Committee to arrange for the programme to be presented on Alumni Day; or any programme for other public occasions; to regulate the finances of the Association; to perform such other duties as may be imposed upon it; and to attend to all business of the Association not otherwise provided for.

7. It shall be the duty of the Advisory Board, when deemed advisable, to consult alumni, undergraduates, faculty, and trustees, and to make recommendations regarding the welfare of the University and of the Alumni Association.

IV. COMMITTEES

1. The President shall be ex-officio a member of all committees.

2. At each annual business meeting the President shall appoint a committee of two persons to audit the Treasurer's accounts.

3. A Regional Director of the Alumni Association shall be appointed annually in communities which the Advisory Board of the Alumni Association shall designate. The purpose of the district organization shall be to develop local interest in respect to the undertakings of the University and the policies of the Association. The Regional Director shall be selected and shall hold office in the manner prescribed from time to time by the Advisory Board of the Alumni Association. The duties, privileges, and jurisdiction of the Regional Director shall be defined from time to time by the Advisory Board of the Alumni Association.

V. ELECTIONS

1. The February issue of the *Stanford Illustrated Review* shall give notice of the annual nomination and election of officers of this Association. Said notice shall contain the names of the incumbent officers and shall indicate the hold-over members of the Advisory Board, and shall contain in full the provisions of this Constitution relating to nominations and elections.

2. Nominations in writing, signed by at least twenty members, shall be required for any nomination. Nominations shall be forwarded to the Secretary-Treasurer between the first day of February and the first day of April of each year. On or before the fifteenth day of April of each year, the Secretary-Treasurer shall mail to every member

of this Association whose dues for the current year have been paid, an official ballot containing all the nominations, with the addresses of the nominees and the number of proposers of each, and said ballot shall be published in the April issue of the *Stanford Illustrated Review,* provided, however, that where no contests occur, the Secretary-Treasurer shall be empowered to cast the ballot.

3. Officers shall be elected at an annual election to be held at Stanford University on Alumni Day, between the hours of nine o'clock a. m. and twelve o'clock noon. The Executive Committee shall have charge of the election. The elector may cast a written ballot in person, or by mail, addressed to the Secretary-Treasurer, marked "Ballot" and disclosing the sender's name, and enclosing a ballot in a plain envelope. Ballots so received shall be opened and cast only during the hours of election. The respective candidates receiving the highest number of votes shall be declared elected. A tie vote shall be decided by lot.

4. No one whose annual dues are in arrears for the current year shall be entitled to vote or to hold office.

VI. DUES

The dues of the Association shall be $1.50 per year for each member thereof, which amount shall include a subscription to the *Stanford Illustrated Review.*

Provided, however, that all members who, prior to May, 1908, have paid $5 shall be exempted from further dues.

VII. MEETINGS

Meetings of the Association may be called by the President or by petition of twenty members, said meetings to be held at Stanford University.

VIII. AMENDMENTS

Any proposition to alter or amend these Articles of Association must be proposed in writing, signed by twenty members, and submitted to the members by mail in printed form by the Secretary-Treasurer and voted upon in the same manner as are nominations for officers, and adopted by a majority vote.

OFFICERS OF THE ASSOCIATION, 1922–23

President—FRANK L. GUERENA, '11.

Vice-President—MARGARET SMITH THOMAS, '04.

Secretary-Treasurer—JOHN EZRA MCDOWELL, '00.

Executive Committee—W. PARMER FULLER, JR., '10, Chairman; WARREN HASTINGS, '14, CYRIL NUNAN, '12, EVA PEARSALL, '08, JOHN EZRA MCDOWELL, '00.

Advisory Board—CARL GREEN WILSON, '14, Secretary.

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STANFORD UNIVERSITY

AND ADJACENT

1938

SCALE

0 800 1600 2400 3200 FEET

1/2 MILE

BARCADERO

SEALE

WOODLEFIELD

ROAD

AVE